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# School Board Journal

SEPTEMBER, 1910

v. 4 / no 3



WILLIAM GEORGE BRUCE, Publisher, Milwaukee New York Chicago



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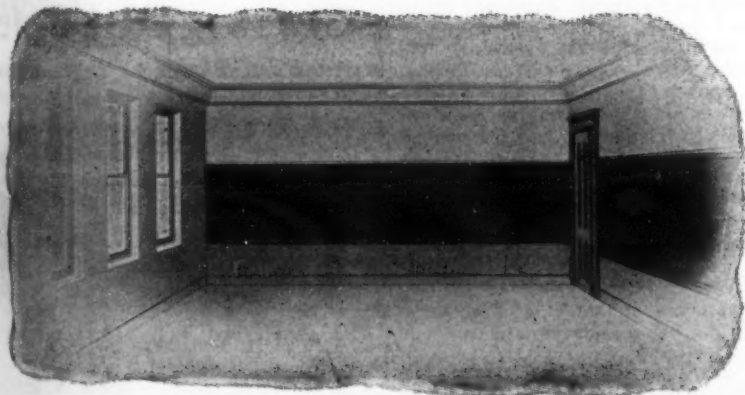
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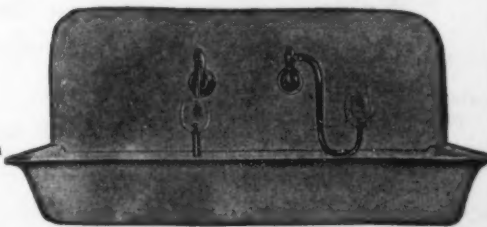
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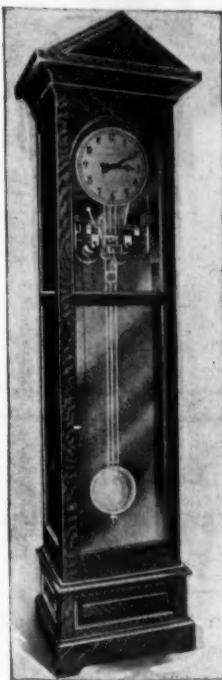
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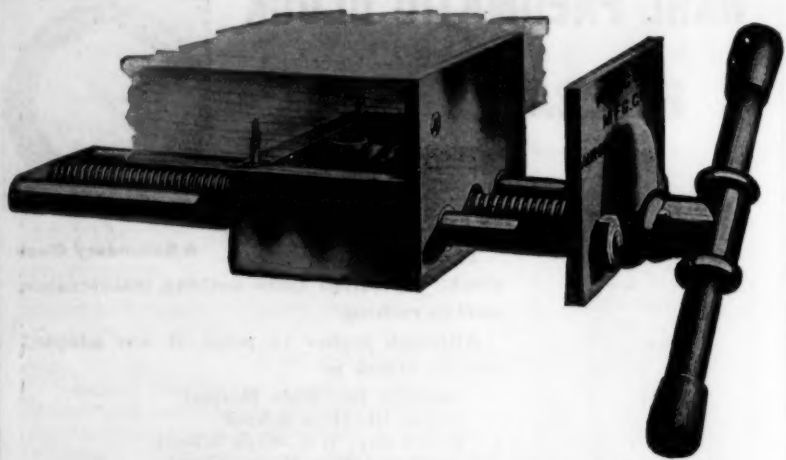
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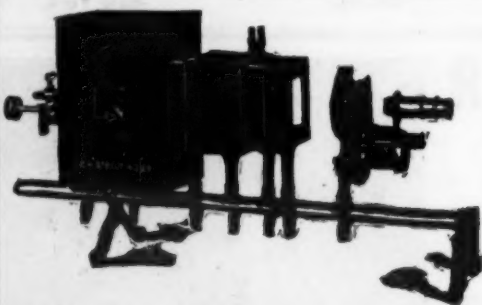
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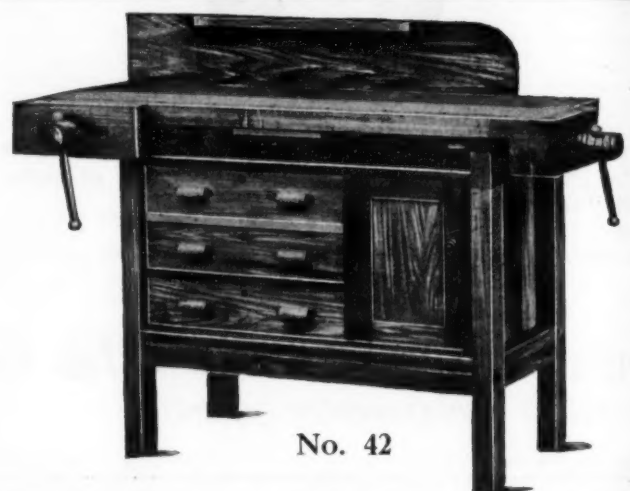
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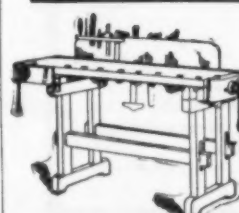
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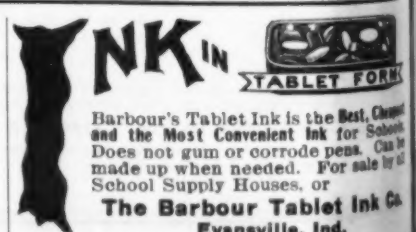


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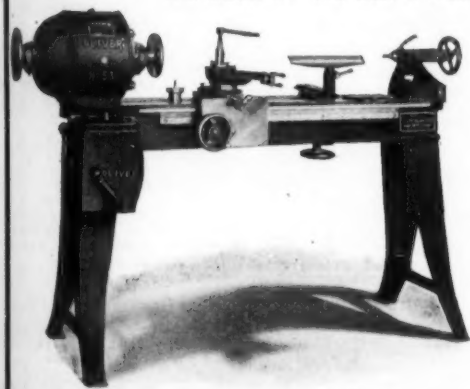
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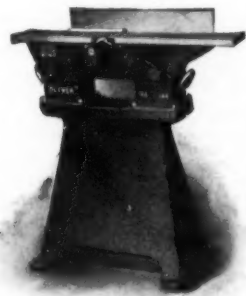
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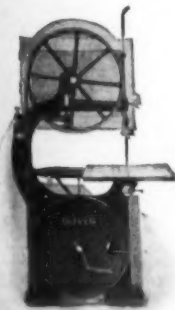
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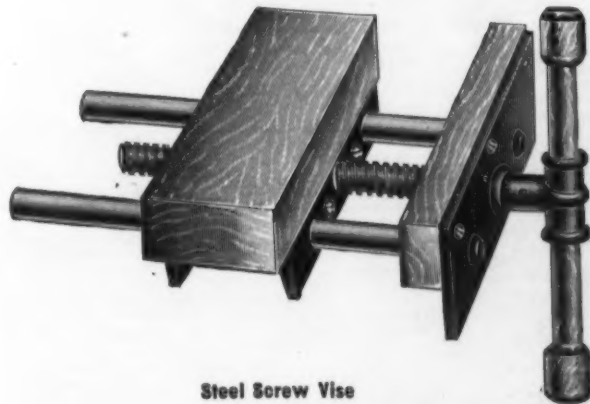
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# List of POPULAR SCHOOL AND COLLEGE Text Books



## ABBREVIATIONS

Appleton	D. Appleton & Co.	New York, Chicago, Boston
Barnes	Arthur J. Barnes Publishing Co.	St. Louis, Mo.
Berry	B. D. Berry & Co.	Chicago, Ill.
Britton	Britton Printing Company	Cleveland, O.
Columbia	Columbia School Supply Co.	Indianapolis and Hamilton, N. Y.
Century	The Century Co.	New York City, Chicago
Ginn	Ginn & Co.	Boston, New York, Chicago
Houghton	Houghton-Mifflin Company	Boston, New York, Chicago
Jenkins	Wm. R. Jenkins Company	New York City
Lee	Laird & Lee	Chicago, Ill.
Lippincott	J. B. Lippincott Co.	Philadelphia, Pa.
Longmans	Longmans, Green, & Co.	New York, Chicago
Merrill	Charles E. Merrill Company	Boston, New York, Chicago
Merriam	G. & C. Merriam Company	Springfield, Mass.
Macmillan	The Macmillan Company	New York, Chicago, Boston
McNally	Rand, McNally & Co.	Chicago, New York
Newton	Newton & Co.	New York, Chicago
Orr	Orr & Lockett Hdw. Co.	Chicago, Ill.
Palmer	A. N. Palmer Company	New York, Chicago, Cedar Rapids
Peckham	Peckham, Little & Co.	New York
Pitman	Isaac Pitman & Sons	New York
Prang	Prang Educational Company	New York, Chicago
Scott	Scott, Foresman & Co.	Chicago, New York
Simmons	Parker, P. Simmons	New York City
Silver	Silver, Burdett & Co.	Boston, New York, Chicago
Sower	Christopher Sower & Co.	Philadelphia, Pa.
Thompson	Thompson Brown Company	Boston, New York, Chicago
Zaner	Zaner & Bloser	Columbus, O.

### AGRICULTURE.

James' Practical. Appleton  
Burkett's Beginners. Ginn  
Bailey's. Macmillan  
Warren's Elements. " "  
Voorhees' Silver

### ALGEBRA.

Young & Jackson's. Appleton  
Beman & Smith. Ginn  
Wentworth Series. " "  
Hawkes' Advanced. " "  
Fisher & Schwatt. " "  
Hall & Knight. Macmillan  
Schulze's Series. " "  
Durrell & Robbins. Merrill  
Collins' Series. Scott  
Aley & Rothrock's. Silver  
Atwood Series. " "  
Lilly's Series. " "  
Hobbs' Gr. Sch. Simmons  
Brooks' (2 bks.). Sower  
Brooks' Standard. " "  
Fairbank & Hebdens. " "  
Bradbury-Emery Be-  
ginners' Thompson  
Bradbury-Emery Re-  
vised Academic. " "  
Perrin's Lippincott  
Lippincott's

### ARGUMENTATION.

Pattee's Practical. Century  
Baker's Prin. Ginn  
Foster's Arg. Houghton  
Laycock & Scales. " "  
Laycock & Spofford's. " "

### ARITHMETIC.

Appleton Series. Appleton  
Britton Series. Britton  
Moore & Miner's. Ginn  
Prince's. " "  
Smith's. " "  
Wentworth-Smith Ser. " "  
Colburn's. Houghton  
Kelso High Sch. Macmillan  
McLellan & Ames. " "  
Byrnes-Richman-Rob-  
erts. " "  
Hopkins-Underwood. " "  
Durrell & Robbins. Merrill  
Thompson's. " "  
Felmley & Schutt's. McNally  
Rand, McNally Series. " "  
Haworth Series. Newton  
Schuyler & Van Sickle. " "  
Myers. Scott  
Cook & Cropsy's. Silver  
Pierce Series. " "  
Sensennig & Anderson. " "  
Standard Series. " "  
Sisk's Higher. " "  
Van Amburgh's. " "  
Academic and High Sch. " "  
Graded Number Les-  
sons. " "  
Peck's Series (2 bks.). " "  
Brooks' Standard Series  
(6 books). Sower  
Brooks' Higher. " "  
Bradbury's Sight. " "  
Bradbury's Practical. " "  
Nichols New Graded. " "  
Nichols 3-Book Pro-  
gressive. " "  
Lippincott's. Lippincott

### ART.

Riverside Art Series. Houghton  
Wilson's Picture Study. " "  
Famous Painters. Macmillan  
Principles of Art Ed. Merrill  
Abbott-Gaskell's. Silver

### ASTRONOMY.

Comstock's. Appleton  
Young's. Ginn  
Ball's Ele. Macmillan  
Moulton's Intro. " "

Howe's Elements. Silver  
Peck's Constellations. " "  
Chauvenet's. Lippincott  
Sharpless & Phillips. " "  
Watson's. " "

### BIOLOGY.

Bidgood's. Longmans  
Parker's. Macmillan  
Bailey & Coleman. " "  
Pillsbury's. Silver  
Gay's. Ginn  
Moore & Miner's. " "  
Cole's Accts. Houghton  
Bogle's Comprehensive. " "  
Montgomery's Mod. Merrill  
Sandy's. Newton  
Bookkeeping Simplified. " "  
Hall's Art of Accounts. " "  
Mayhew's Series. Silver  
Lyte's Practical. Sower  
Meserve's Series. " "  
Meserve's Blanks. " "

### BOTANY.

Coulter's Text. Appleton  
Coulter's Plant Rela-  
tions. " "  
Coulter's Plant Struc-  
tures. " "  
Coulter's Plants. " "  
Bergen & Davis. Ginn  
Bergen's. " "  
Meier's Herbarium. " "  
Meier's Plant Study. " "  
MacDougal's. Longmans  
Bailey's Series. Macmillan  
Object Lessons on Plants. " "  
Harshberger's Herbarium. " "  
Sower

### BUSINESS ENGLISH.

Altmaier's Commercial  
Correspondence. Macmillan  
Style Book of. Pitman  
Westlake's Letter Writ-  
ing. Sower

### BUSINESS LAW.

Burdick's Essen. Appleton  
Sullivan's Amer. " "  
Huffcut's Elements. Ginn  
Clark's. Merrill  
Clow's Commerce. Silver  
White's. " "  
Wilson & Tucker's In-  
ternational Law. " "

### BUSINESS METHODS.

A First Book In. McNally  
Hewett's Manual. " "

### CHEMISTRY.

Bradbury's Elementary. Appleton  
Morris & Irwin's Lab-  
oratory Manual. " "  
Smith's Inorganic. Century  
Smith's College. " "  
Smith's Lab. Out 1. " "  
McPherson & Hender-  
son's. Ginn  
Ostwald & Morse's. " "  
Williams. " "  
Garrett & Harden's. " "  
Muller's Course. Longmans  
Newth Series. " "  
Gooch's Lab. Expts. " "  
Noyes' Qualitative. Macmillan  
Richardson's. " "  
Roscoe & Lunz's. " "  
Talbot's Quantitative. " "  
Peter's. Merrill  
Lineberger's. McNally  
Davis. Scott  
Appleton's Series. Silver  
Ekeley's Elementary. " "  
Experimental. " "  
Bennett's Inorganic. " "  
Mead's. " "  
Greene's. Lippincott  
Moore's. " "  
Wurtz's. " "

### CIVIL GOVERNMENT.

Moses' Government of  
U. S. Appleton  
Foreman's Adv. Civics. " "  
Boynton's Civics. Ginn  
Macy's. " "  
Seelye's. " "  
Fiske's. Houghton  
Holt's Civic Relations. " "  
Leacock's Ele. of Pol. Science. " "  
Smith's Treg. for Citizen-  
ship. Longmans  
Ashley's Am. Macmillan  
Ashley's Gov't and Citizen. " "  
Judson's Y's Am. Merrill  
Shimmell's. " "  
Young's. Newton  
Lowry's. Sower  
Hoxie's. Silver  
Lansing & Jones. " "  
Martin's Hints. " "  
Mowry's Series. " "  
Clement's. Simmons  
Furst's Outlines. Sower  
Nation and State. " "  
Shepard's. " "  
Constitution of U. S. (with notes). Thompson  
Schwinn. Lippincott

### COMMERCIAL HISTORY.

Webster's History of  
Commerce. Ginn  
Semple's Am. History and  
Its Geographic Condi-  
tions. Houghton  
Coman's Indus. History. " "  
Day's. Longmans  
Bogart's Economic U. S. " "  
Cheyney's Indst. and  
Social History of  
England. " "

### COMPOSITION AND RHETORIC.

Thorndike's. Century  
Gardiner, Kittredge &  
Arnold's. Ginn  
Hanson's. " "  
Genung's Series. " "  
Lockwood & Emer-  
son's. " "  
Mother Tongue books. " "  
Webster-Coolley Series. " "  
Webster's Eng. Comp. " "  
and Lit. " "  
Webster's Ele. Comp. " "  
Bate's Talks. " "  
Cook's Higher Study of  
English. " "  
Whites' Everyday. " "  
Whites' Words and  
Their Use. " "  
Thomas & Howe's Longmans  
Baldwin's College. " "  
Carpenter's. Macmillan  
Huntington's (2 bks.). " "  
Lewis' Manuals (2). " "  
Lewis' Writing Eng. " "  
Robins & Perkins. " "  
Kellogg's. Merrill  
Kavans & Beatty's. McNally  
McKeon's Graded Les-  
sons. Newton  
McKeon's Com. " "  
Merkeley's Rhet. " "  
Herrick & Damon's. Scott  
Copeland & Rideout's. " "  
Welsh's Series. " "

### DICTIONARIES.

Appleton's Latin. Appleton  
Spiers & Surrence's. " "  
French. " "  
Adler's German. " "  
Cuyas' German. " "  
Liddell & Scott's. Ginn  
Greek. " "  
Clifton & McLaugh-  
lin's French and  
English. Jenkins

Webster's New Interna-  
tional. Merriam  
Webster's Collegiate. " "  
James & Mole's French  
English. Macmillan  
Tauchnitz's. " "  
James' German and  
English. " "  
James & Grassi's Ital-  
ian and English. " "  
Tolhausen's Techno-  
logical. " "  
Commercial. Pitman  
Worcester's Standard  
Series. Lippincott  
Worcester's New School  
Lee's Webster's Series. Lee  
Grimm's German-Eng-  
lish. Lee

### DRAWING.

Ross's Pure Design. Houghton  
Halle's Prac. Drawing. " "  
Art Education Draw-  
ing Book Course. Prang  
Course in Water Color  
Art Education for  
High Schools. " "  
Ele. Course in Art  
Instr. " "  
Rouillon's Mechanic-  
al Drawing. " "  
Text Books of Art  
Education (1 to 8). " "  
Colby's Talks on Draw-  
ing, etc. Scott  
Normal Course. Silver

### ELOCUTION.

Fulton & Trueblood's. Ginn  
Shurter's Extemp. " "  
Hyde's School Speaker. " "  
Russell's Vocal Culture. " "  
Brown's Philosophy of  
Expression. " "  
Burrell's Reading and  
Speaking. Longmans  
Marland's. " "  
Woolster's Speaker. Lee  
Hafford's. Lippincott

### ENGLISH LITERATURE.

Trent's Brief Am. Appleton  
English Classics, 20th  
Century. " "  
Red Shield Series. Ginn  
Athenaeum Press Ser. Ginn  
Hudson's Shakespeare  
Gayley's Eng. Lit. " "  
Lewis' Beginnings. " "  
Long's Eng. Lit. " "  
Minto's. " "  
Manley's Eng. Poetry. " "  
Manley's Eng. Prose. " "  
Morley's Eng. Poetry. " "  
Standard Eng. Clas-  
sics Series. " "  
American Poems, and  
Prose (2 bks.). Houghton  
Bates' Talks on Lit. " "  
Chief Poets Series. " "  
Hinchman-Gummer's  
Lives of English  
Writers. " "  
Higginson & Boy-  
nton's Am. Lit. " "  
Masterpieces Am. Lit. " "  
British Lit. " "  
Modern Classics. " "  
Perry's Prose Fiction  
Page's Am. Poets. " "  
Riverside Series. " "  
Rolfe's Students Ser. " "  
Richardson's Amer-  
ican Lit. " "  
Simond's History Eng. " "  
Lit. " "  
Simond's History Am. " "  
Lit. " "  
Tappan's England's Lit. " "  
Tappan's England's  
and America's. " "  
Tappan's Am. Lit. " "  
Longmans' Classics. " "  
Arnold's Lit. Longmans  
Dodson's Handbook. " "  
Longmans' Lit. " "  
Bates' Am. Lit. Macmillan  
Brooke-Carpenter's. " "  
Gayley & Young's Eng-  
lish Poetry. " "  
Macmillan's Pocket  
Classics. " "  
Abernethy's Amer. Merrill  
Kellogg's. " "  
Maynard's Series. " "  
Merrill's Texts. " "  
Canterbury Classics. " "  
Rand-McNally School  
Library Series. " "  
Curry's Literary Read-  
ings. " "  
Standard Literature Ser. " "  
Necomer's American. Scott  
Newcomer's English. Scott  
Welch's Development of  
English. Scott  
Lake Eng. Classics. " "  
Silver Series of Classics. " "  
Pattee's American Lit. " "  
Pattee's Reading  
Courses. " "  
Pattee's Foundations. " "

Camelot Ser. (Prose) Simmons  
Canterbury Poets. " "  
Westlake's. Sower

### FRENCH.

Downer's 1st b'k. Appleton  
Aldrich & Foster's Ele. " "  
Verbs. Ginn  
Dufour's Grammar. " "  
Internat'l Modern. " "  
Lang Series. " "  
Bercy's Series. Jenkins  
Bercy & Castagnier  
Grammar. " "  
Bernard's Idiomat. Fr. " "  
Beauvoisin's French  
Verbs. " "  
Bernard's Art Inter-  
esses en Classe. " "  
Churchman's Pronun-  
ciation. " "  
Du Geer's Lectures and  
Conversations. " "  
Du Croquet's Series. " "  
Fontaine's Les Prosa-  
teurs Fr. " "  
Julien's Un Peu de  
Tout. " "  
Marion's Le Verbe. " "  
Robique's Historiettes  
et Poesies. " "  
Rougemont's Drill  
Book "A". " "  
Rougemont's Manuel  
de la Litterature. " "  
Sauveur Causeries avec  
mes eleves. " "  
Sauveur & Lougee,  
Gram. " "  
Thieme & Effinger's  
Betis & Swan's Method. " "  
Longmans' Composi-  
tion and Language  
Books. " "  
Grammar. Macmillan  
Keetel's Gram. and  
Reader. Merrill  
Anecdotes Nouvelles. " "  
Elementary French. " "  
La France. " "  
Maynard's Texts. " "  
French Daily Life. Newton  
Newton's. " "  
Pitman's. Pitman  
Lake Fr. Classics. Scott  
Lake Fr. Readings. " "  
Bordes' Ele. of. " "  
Dike's Scientific  
Reader. Silver  
Douay's Ele. Reader. " "  
Through France and  
French Syntax. " "  
Magill's Series. Sower  
Yersin's Method. Lippincott

### GEOGRAPHY.

Adam's Com'l. Appleton  
Adam's Ele. Com'l. " "  
Gilbert & Brigham's  
Physical. " "  
Frye's. Ginn  
Davis' Physical. " "  
Thornton's. Longmans  
Longmans' Commercial  
Chisholm's Commercial  
Tarr & McMurry's. " "  
Trotter's Geog. of Com. " "  
Tarr's New Phys. " "  
Dodge's Series. McNally  
Rand-McNally Series. " "  
Robinson's Commer'l. " "  
Pitman's Commer'l. Pitman  
Inductive Series. Silver  
Lippincott's Gazetteer. Lippincott

### GEOLOGY.

Brigham's. Appleton  
Norton's Elements. Ginn  
Story of Our Planet. " "  
Tarr's Elements. Macmillan  
Ries' Economic of U. S. " "  
Scott's Introduction. " "  
Winchell's Studies. Scott  
Heilprin's Earth and  
Its Story. Silver

### GEOMETRY AND TRIGO- NOMETRY.

Fallor's Geom. Century  
Wentworth Series. Ginn  
Baker's Geom. " "  
Beman & Smith. " "  
Bailey & Woods. " "  
Grenville's Trig. " "  
Taylor's Trig. " "  
Smith & Gale's Anal.  
Geom. " "  
Nichols' Trig. " "  
Schultze & Sevenoak's  
Geometry. Macmillan  
Holgate's Geom. " "  
Lock-Miller's Trig. " "  
Durrell's Series. Merrill  
Clark's Trig. Newton  
Welsh's Geom. Scott  
Bush & Clarke's Ele-  
ments. Silver  
Pettee's Plane Geom. " "  
Hobb's Geom. Simmons  
Brook's Plane and Solid  
Geom. Sower  
Brook's Plane Geom. " "  
Brook's Pl. and Spher.  
Trig. " "  
Bradbury's Elem. Geom. Thompson

Bradbury's Elem. Trig. " "  
Bradbury's Trig. &  
Survey. " "  
Bradbury's Academic  
Geom. " "  
Chauvenet's Geom. &  
Trig. Lippincott

### GERMAN.

20th Cen. Series. Appleton  
Learned's Grammar. " "  
Jones' Reader. " "  
History of German  
Literature. Columbia  
Int. Mod. Language. Ginn  
Bernhardt's Course. " "  
Collar's 1st Year. " "  
Stein's Exercises. " "  
Deutscher Hiawatha  
Primer. Houghton  
Bailey's Der Praktische  
Deutsche. Jenkins  
Dreyspring's Construc-  
tive Process for  
Learning Ger. " "  
Cutting's Difficulties  
of Ger. Gram. " "  
Schultz Praktischer  
Lehrgang. " "  
Longmans' Composition  
and Grammar. Longmans  
Althaus' Grammar. " "  
Beresford-Webb. " "  
Betis & Swan's. " "  
Hewett's Ger. Reader. " "  
Macmillan's Series. " "  
Maynard's Texts. Merrill  
Bacon's New. " "  
Neue Anekdoten. " "  
Deutschland und die  
Deutschen. " "  
Beginner's. " "  
German Daily Life. Newton  
Knofflach's. " "  
Newton's. " "  
Pitman's Practical. Pitman  
Becker-Rhodes Ele. Scott  
German Stories. " "  
German Classics. " "  
Müller Series. Silver  
Loesberg's Series. " "  
Dippold's Grammar. " "  
Schmitz gram. Lippincott

### GREEK.

Goodell's School. Appleton  
Smith's Anabasis. " "  
Benner's Homer's Iliad  
Morrison & Goodell's  
Beginners. " "  
Goodwin's Grammar. Ginn  
White's First. " "  
White's Beginners. " "  
Seymour's Iliad. " "  
Perrin & Seymour's  
Odyssey. " "  
Collar & Daniel's Be-  
ginners' Companion. " "  
School Classic Series. " "  
Coll. Series—Authors. " "  
Bryant's Iliad. Houghton  
Bryant's Odyssey. " "  
Palmer's Odyssey. " "  
Masterpieces of Greek  
Literature. " "  
Browning's Blanks for  
Greek Verbs. Jenkins  
Haven's Blanks for  
Conjugation or Syn-  
opsis of Grk Verbs. " "  
White's Texts. Longmans  
Ball's Ele. Macmillan  
Bonner's Comp. Scott  
Burgess & Bonner Ele.  
Gram. " "

### HISTORY.

McLaughlin's American  
Nation. Appleton  
Wrong's British Na-  
tion. " "  
Munro's Middle Ages. " "  
Whitcomb's Modern  
Europe. " "  
Munro & Whitcomb's  
Medieval & Modern  
Gulick's Life of the  
Ancient Greeks. " "  
Southworth's Builders  
of Our Country. " "  
Foreman's U. S. Century  
Cheney's England. Ginn  
Emerton's M. Ages. " "  
Lawler's Essentials of  
Am. History. " "  
Myers' Series. " "  
Montgomery's Series. " "  
Blaisdell's Story of  
America. " "  
Blaisdell & Ball's  
Stories. " "  
Fiske's How U. S. Be-  
came a Nation. " "  
Robinson & Beard's  
Modern Europe. " "  
Robinson's Western  
Europe. " "  
Brigham's Geog. In-  
fluences in Am. His. " "  
Fiske's U. S. Houghton  
Larned's U. S. " "  
Larned's English. " "  
Ireland's Story. " "  
Ploetz's Epitome of. " "  
Riverside Biographical  
Series. " "  
Tappan's European  
Hero Stories. " "  
Tappan's Story Greek  
People. " "



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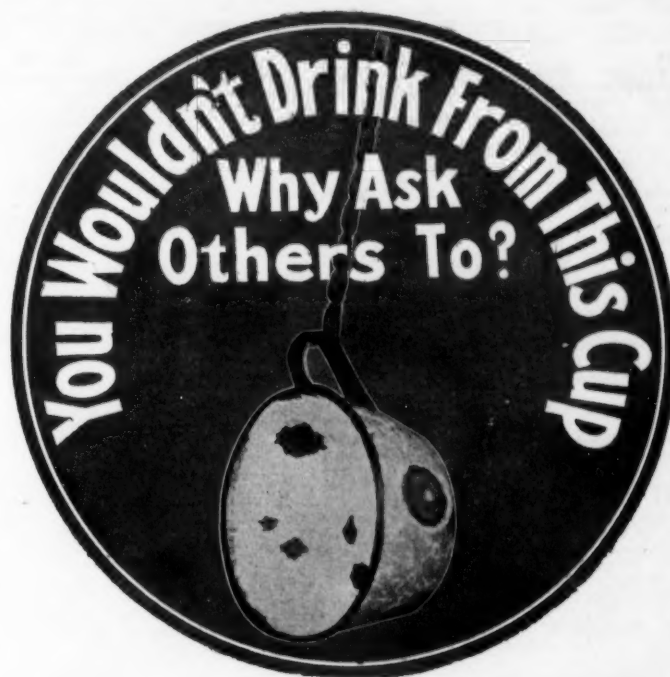
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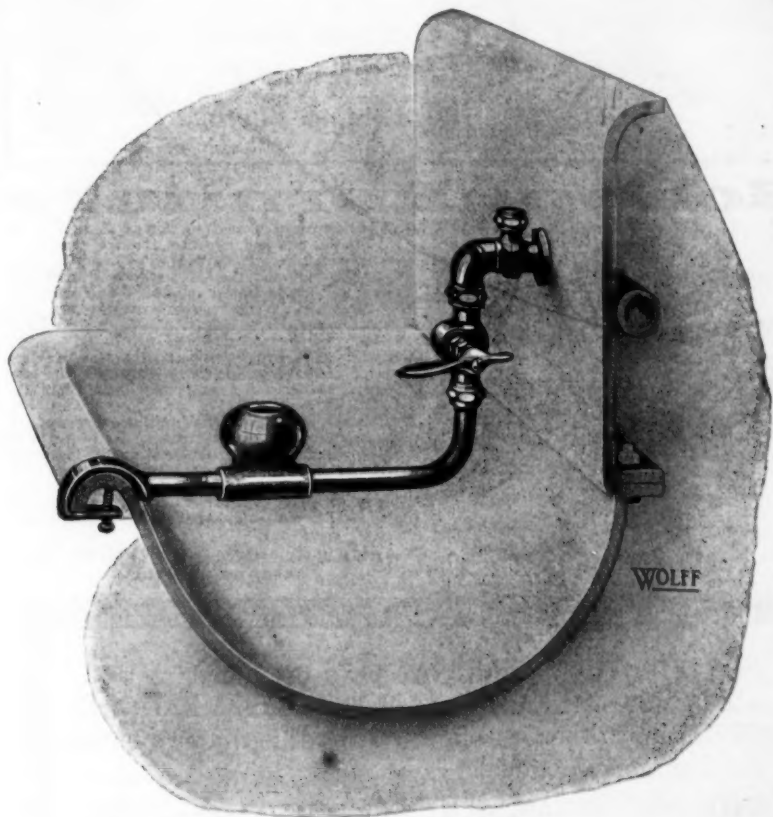
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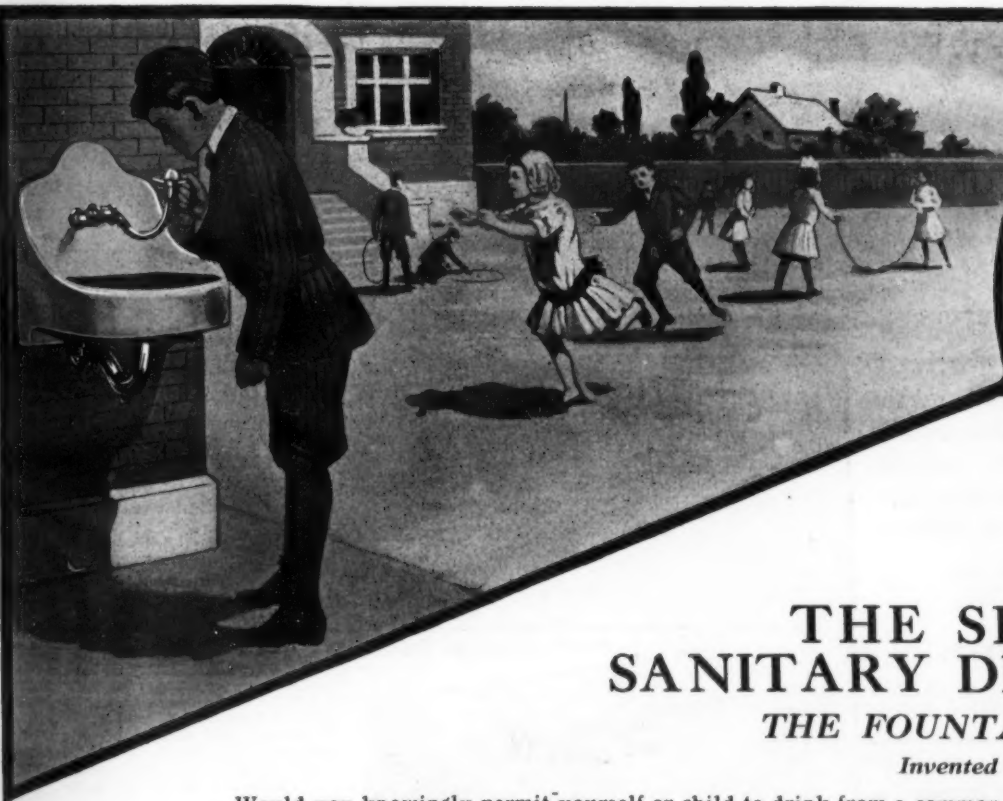
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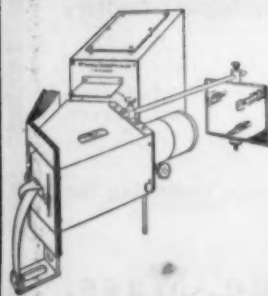
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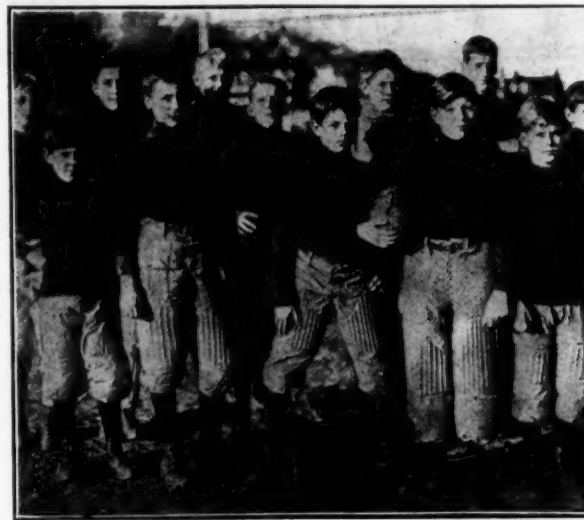
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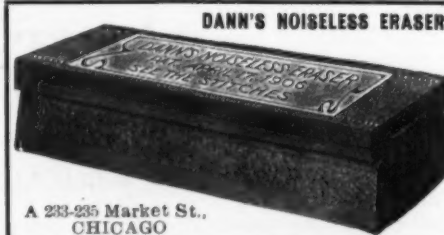
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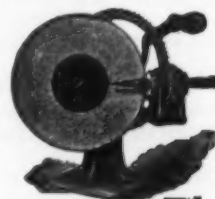


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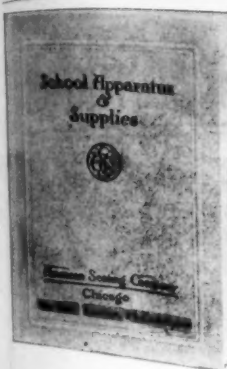
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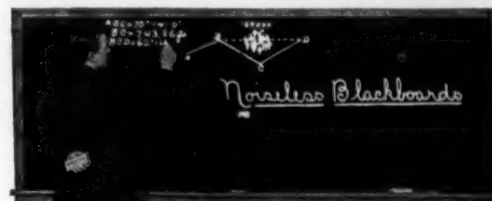
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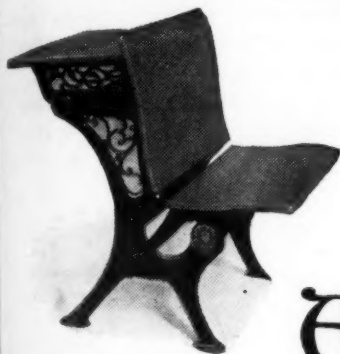
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MILWAUKEE—New York—Chicago, SEPTEMBER, 1910

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## ASKING NEW LAWS.

The Pennsylvania Educational Commission has completed a new school code for enactment by the Legislature.

# School Administration.

## FORGE WORK vs. WOOD WORK.

By W. A. Richards, University of Chicago.

The writer has often asked himself the question: Why do so many of our schools have a course in wood work and so few have forge work? Can the answer be found in the following questions: (a) Is it a matter of first cost in equipping the shop? (b) Is it the cost of maintenance? (c) Is it that it lacks in educational value, or is it that the proper teacher is hard to find and therefore expensive?

We wish to answer these questions and attempt to show that they do not give a reason for not having the course. The questions will be answered in reverse order.

(c) Yes, forge teachers are much harder to obtain than wood shop teachers, and can for that reason demand a considerably higher salary, but other things being equal, \$300 or \$400 a year should not stand in the way of the benefits to be gained; and again, this man can usually teach foundry work at no additional cost for salary and but very little for equipment and materials. He also is usually capable of assisting in other lines. (The writer was called upon to teach in the wood and machine shops, and also elementary algebra in his first position and his first year of teaching.) It therefore seems that there should be no holding back on account of the teacher or salary side of the question.

Does it lack in educational value? No. It does not; it contains the tool technique (possibly not quite so many tools as in wood, but almost), it brings out some practical application of the laws of physics (heat). As wood is allied to botany, so iron is to chemistry and metallurgy; and when skill is considered, it requires far more to handle iron by means of a pair of tongs than wood with the bare hands. It seems, therefore, that everything that can be said in favor of wood work, from an educational point, can be said of iron and to a greater degree.

(b) The question of cost and maintenance is an item that always must be very carefully considered before introducing any shop work.

Figuring liberally the cost of a course in forge for a class of twelve, covering six months, will be about as follows:

Iron .....	\$13.50
Coal (2 tons) .....	10.00

\$23.50

or a total cost of \$2.00 per pupil. The cost of power, if used, is so variable that it has not been considered. It will be about the same as for the wood turning shops under similar conditions as to cost of power and number of pupils. Thus the cost is about the same as for an equivalent course in the wood shop, when lumber is an average price. These figures do not cover the cost of individual projects in either shop, because when a pupil makes a piece of furniture or a pair of andirons he pays for the material used, thereby making no expense to the school for it.

The statement may be made, "We can have wood work without power." The answer is, we can have forge work without power. There are many schools where a very good forge

\*Foot Note: The writer is here referring only to the equipment. He believes in nothing but the best instruction. A school had far better not give any of the work, either wood or forge, than to give it with cheap teachers.

course is given and the forges used are the hand power type. The statement has been made that to use hand power forges is going back fifty years. If this is so of the forge shop is it not equally so of the wood shop that is not equipped with circular and band saws, a planer and a jointer. No one would think of not having a course in wood work because they could not have these machines. Why then should we say we cannot have the forge course because we cannot afford the power forge, power shear and power hammer. We should not, but should put in the best that we can afford, and give the boy the benefit of the work.

(a) We now come to the question of first cost. A good, substantial bench for wood work will cost about \$25.00, and the tools about \$10.00, making a cost of \$35.00 for equipment for each unit; not including any machinery, as planer and band saw. The cost for a forge unit will be:

Hand power forge, fire pan 25x36 in....	\$22.00
Anvil, 120 lbs. ....	9.00
Tongs (4 pair) ....	2.00
Hardie .....	.25
Hammer .....	.75

\$34.00

This shows that the cost of the two shops is about the same. In most schools the pupil in forge is required to furnish his own hammer, which reduces the cost slightly.

There are several general tools needed, however, which make the price come about the same as for the wood shop. These tools are for a class of twelve as follows:

3 8 lb. sledges at \$1.25.....	\$ 3.75
2 cutters (hot) with handles..	1.50
2 cutters (cold) with handles..	1.50
2 top and bottom fullers 3/8...	2.00
2 top and bottom fullers 1/2...	2.00
1 top and bottom swage 3/8...	1.00
1 top and bottom swage 1/2...	1.00

\$12.75

or about \$1.00 per unit.

These figures are catalogue price and are subject to some discount, but the freight would probably equal the discount, making the goods delivered at cost as above. A cheap forge has been selected, but one that will answer the purpose.

These figures tend to show no difference in first cost. There is, however, an item which will increase the forge shop cost more or less, depending upon local conditions, i. e., setting the equipment and buying and placing the anvil blocks. But even with this the difference is so slight that no school that is now giving wood work can say they cannot afford the forge work.

### MITIGATING THE PART-TIME EVIL.

The building committee of the board of education of Greater New York recently reported a plan for the use of classrooms by which the evils of the part time classes have been slightly reduced. It consists in alternating two such classes between the classroom and the playground and is feasible only in buildings where there is covered play space. The plan will be readily understood from the following time schedule which has been followed during the year past:

Class 1: 8:30-9:30 a. m., room 103; 9:30-

10:30 a. m., in yard; 10:30-11:30 a. m., room 103; 11:30-12:30 a. m., home; 12:30-1:30 p. m., room 103; 1:30-2:30 p. m., in yard; 2:30-3:30 p. m., ———.

Class 2: Report at 9:30 a. m. 9:30-10:30 a. m., in room 103; 10:30-11:30 a. m., in yard; 11:30-12:30 a. m., room 103; 12:30-1:30 p. m., home; 1:30-2:30 p. m., room 103; 2:30-3:30 p. m., room 103.

Where it is not possible to adopt such an arrangement the classes are alternated weekly for morning and afternoon continuous sessions of three and one-half hours.

Speaking in general of half day sessions the committee says:

"As a rule, it may be said that after a pupil advances beyond the first-year grades part time is highly injurious. The chief evils of part time are as follows:

"1. Through the abnormal amount of time spent in the street, intensification of what may be called the street habit—the habit that causes the boy to delight in listless looking on at the sights and sounds of the crowded street—the habit that leads to idleness and vagrancy—the habit that antagonizes the all-important habits of attention and concentration.

"2. Loss of power, in the case of foreign-born children or of the children of foreign-born parents, in the use of the English language. Every reduction in the length of the school day means for such pupils a reduction in the time devoted to the hearing and the correct practice of the English language. It is only by assiduous practice that the child of non-English-speaking parents overcomes his enormous linguistic difficulties. Part time reduces his opportunities for such practice.

"3. Where part time exists beyond the first-year grades, there results, for the average pupil, lack of thoroughness in school studies. There is not time to do the work of the curriculum in a school day of three hours and a half, while the acquisitive powers of the mind are impaired by the "street habit." There are very bright pupils who suffer little from part time, but there can be no doubt that the lack of a full day's schooling is a serious drawback to the great mass of children who suffer from it.

"The only way to eliminate these evils of part time is to eliminate their cause—part time itself. This can be accomplished only by providing elementary school accommodations within walking distance of all the children of the city. And such provision of school accommodations can be made only when sites are purchased and buildings erected strictly in the order of necessity."

Philadelphia, Pa. The course in arithmetic has been thoroughly revised under the direction of Supt. Brumbaugh. In first year classes, less attention will be paid to exacting problems, and in the upper grades, "short methods," long advocated by business men, will be taught.



First Professor—That man has been signally honored by many colleges.

Second Professor—I should say so. He has been given enough degrees to qualify him for a first-class thermometer.



# THE STANDARDIZATION OF SCHOOL STATISTICS

By HON. HENRY R. M. COOK, C. P. A., Auditor, Board of Education, New York City.

In a practical sense, education represents a public investment, when administered properly.

Defective administration may so change the situation as to cause the public mind to regard education as in the nature of an expense. In suggesting this thought, the reference is not confined merely to financial expense, which is readily controlled as to volume, but there is a more important element to be considered—expense of time, and defective administration is the common means of wasting time, thus working a hardship to the educational unit—the pupil.

Educational results are not of an exact character, and cannot be measured in the same manner as the product of a business.

Physical conditions are rarely the same in school systems, and the plant which in one location is considered ample and sufficient for its purposes, might, in the case of buildings, be condemned as unsafe and unsuitable in another location.

Financial conditions vary greatly, and a school tax based upon the assessed valuations in one city might produce an abundance of money for educational purposes; but, if the same tax rate were applied in another location, its product might be inadequate to maintain even a low standard of efficiency.

The factors used in computing the per capita cost of educational activities vary widely, so that comparative data is not only obscure, but frequently worthless; for instance, some school systems evince a desire to reduce apparent per capita cost by using "enrollment," or separate number of pupils taught during the year, as indicative of the service rendered; again, others use "average daily attendance" as the factor; and still again, "average register" is employed as a kind of middle course or compromise.

Looking at this problem from another standpoint, the groupings of the various kinds of school disbursements are radically different; for instance, capital outlay, in extreme cases, has been known to enter into per capita annual cost. It is by no means uncommon to include in the per capita annual cost, the expenses of maintenance and operation of the school plant, and to further complicate the situation, it is frequently the case that, in communities where evening and special activities are maintained, the day school cost is made the scapegoat for all such items of expense.

The number of sessions in a school year varies in different communities, also the daily duration of the employment; again, the basis for the employment of teachers is not the same, for it may be anywhere between thirty and sixty pupils per teacher, and yet each community may feel satisfied with the course it pursues. That which would be considered as affording the best educational results in one place would be regarded as extravagance in another.

And so the complexity of the problem becomes more apparent, as school systems grow larger proportionately with the increase in population, and the demand for better and enlarged educational facilities.

Probably no greater service can be rendered to the cause of public education than the adoption of standards of measurement of efficiency. The collection and collation of educational facts of unequal weight and varying consistency produces a mystifying rather than clarifying effect. Healthy competition and the stimulus to do better things is not encouraged by a display of unequal and inconsistent facts placed in juxtaposition.

No man possesses greater opportunity for the collection of standardized facts than does the

United States Commissioner of Education, and it was with keen enthusiasm and genuine pleasure that a number of school officials and others met in Washington last May, at the invitation of Dr. Elmer Ellsworth Brown, for the purpose of forming an organization to aid him in securing standardized school facts, and, in thus aiding him, to further the interests of educational administration generally. Such an organization was formed under the name of The National Association of School Accounting Officers. The object of this association, as set forth in its constitution, is "the standardization of fiscal, physical and educational data of school systems for presentation in the form of public reports."

The broad scope of the objects of this organization may seem to require some explanation and comment, and this occasion affords an excellent opportunity of setting forth some salient points.

The fact is clear that the association aims at the assembling of educational facts, common to all school systems, in the form of reports which shall set forth, not merely one branch of school administration, but solid statements covering every phase; in other words, mere fiscal data is incomplete unless it is combined with physical effect, and the presentation alone of both of these factors fails in usefulness if they do not support and combine with the essential object of all school systems, namely, education, to which fundamental proposition they are secondary, or, in other words, a means to a great end.

A report dealing alone with the ethical and pedagogical side of a school system would fall short of its public requirements, and, though it would be interesting and instructive to the few, it would not be indicative of the operations of the whole undertaking. The public mind today is of an inquiring and discerning turn, and the school question in most communities is a matter of constant consideration. The citizen wants to know if the schools in his community are producing as good results, covering the same ground, or are as far advanced in modern methods as in other cities; and he would also like to know whether his capital outlay produces as efficient a plant as elsewhere, and, if not, why not.

On the strictly educational side, the results may be excellent, but the cost very great.

"Is there any reason why the same results could not be obtained at more moderate cost?" is a natural and common question. And so it appears to be inherent in the problem that it is beneficial to present a complete story and nothing less.

It is not to be inferred for one instant that the school accounting officer and statistician can evolve and produce, by himself and of himself, a report which will reflect and illuminate all branches of a school system, but it is submitted, as a thought, that where facts, of whatsoever nature, can be reduced to form and figures, the school accounting officer and statistician is best able to perform such function, so as to combine, co-ordinate and arrange them, to the end that perfect harmony shall exist from a statistical point of view. This would leave to the educational head an opportunity to deal with conditions and facts governing the fundamental objects of the system, and the report as a whole would then fairly represent the system as a whole—its operations, needs and condition.

The association is in its infancy, and while many things have been discussed, it has not

been possible, up to the present time, to do more than touch lightly upon the many phases incidental to the important problem to be solved. However, it may be well, at this time, to suggest some items of a practical character, that may furnish food for thought.

In the determination of costs, it is obvious that the method of computing "attendance" should be uniform everywhere, otherwise, at the outset, results would vary considerably. This point is of fundamental importance, and its relation to the statistical accounting of school systems cannot be overestimated. In the beginning I made some reference to various methods of computing attendance, and their uses and abuses. What is needed primarily, for statistical purposes, is the adoption of a scientific unit, and that all calculations of per capita cost should be based upon such factor. It would seem fitting to consider the acceptance of the following formula: Compute the aggregate days of attendance of each and every scholar attending during the year, and divide same by number of days the schools have been in session. The result would be the average daily attendance during the period. The rule may be applied in connection with each educational activity and would indicate, scientifically, the actual school service performed, for the unit of attendance so computed would represent the average service of each scholar in each specific activity. Such a method is employed in New York City (and elsewhere), and is based upon the educational statutes of that state.

Both register and enrollment have been found to be somewhat inflated factors for use in connection with school statistics, especially in large cities where difficulty is always experienced in following the movement of the school population. It is not uncommon to find the name of a scholar enrolled or registered in more than one school, for, if there is not room at the time of application for admission, the name is frequently recorded, pending a vacancy; meanwhile the applicant may find a place elsewhere. Again, a scholar may actually be admitted and attend a few days; not liking its environment, admission is sought and obtained elsewhere, and it may be some while before it is discovered that the scholar has no right to be counted as a member of the school to which admission was originally obtained. Again, in large cities, families frequently find it necessary on the score of economy, to live near where the bread winner performs his daily work. A change in the location of employment frequently means a corresponding change of residence, and this element of migration creates constant duplication and even re-duplication in school enrollment or registration. Especially is this true in the fall of the year, when school accommodations are congested in some localities, as in the case of the city of New York. While, on the one hand, every care is usually exercised, however unsuccessfully, to avoid duplication in such cases, on the other hand, figures of enrollment and registration, as usually computed, contain also the names of those scholars who have graduated or otherwise left school during the statistical period. Such pupils, therefore, as attend school but part of the year become equal factors with those attending the full period, and, as explained before, other pupils may be unavoidably counted once, twice or even more times. Thus the inflated figures of enrollment and registration become uncertain and unscientific factors if used in connection with per capita costs.

The exponents of this method generally urge,



in support of their views, that, in school systems supplying free text books, an outfit must be provided for each pupil whether such pupil remains in the particular school for one month or one year, and therefore, the expense of such material is directly chargeable to that particular pupil. This may be theoretically true, but watchful administration generally operates to prevent such waste, and in many cases the school outfit follows the child, either in whole or in part, or else is used by a new comer.

Whatever may be said of enrollment of register as a rough and ready basis for allotment of supplies, or making adequate provision in advance for employment of a sufficient number of teachers to meet all approximate needs, it is certain that average daily attendance is undoubtedly preferable for computing per capita cost, and its adoption universally would go far to make valuable the comparative per capita costs of different school systems.

The analysis and classification of school disbursements is an interesting subject and the fixing of a proper resting place for each item of expense is one of the most important functions of the school accounting officer and statistician. A slight study of the individual reports of school systems indicates that there are nearly as many methods of compilation as there are school systems, and so it must follow that the massing of such reports into consolidated form for the purpose of obtaining comparative data cannot be very illuminative or conducive to education stimulus. Massive statistical tabulations may be thus compiled, and they appear well and imposing.

Sometimes, however, an inquiring mind seeks specific comparative data, and takes the trouble to ask questions on some point or points which exhibit marked difference in cost as between two school systems of similar size, and operating under approximately the same conditions. It may be found frequently, in such cases, that upon analysis the true difference in cost is not of material importance, but the classification of the expenses of the two school systems is so radically different that the published statistics but faintly indicate anything of value for the practical purposes of comparison.

Can any factor in school administration be more important than the existence of standardized and classified facts compiled scientifically and methodically for the purposes of comparison?

In the presentation of statistics, there are two common methods employed:

1. By adhering strictly to an exposition of facts, classified under salient heads, in condensed form, and exhibiting such continuity or sequence in time and event as to show clearly, and without embellishment a result, the origin and authenticity of which is not subject to doubt or surmise.

2. A second method is frequently adopted by speculative statisticians who use as a basis the accounts of a fiscal period, and, by process of extreme analysis, endeavor to build a statistical fabric with the object of proving or disproving certain theories.

A plain relation and classified presentation of principal facts, as depicted in the first mentioned plan, is immeasurably preferable, inasmuch as the plain truth thereof is sufficient for the mind of any average individual to grasp, and adequate for the purposes of mental comparison and conclusion.

The second method, while based upon a foundation of facts, is, as a rule, so colored or accentuated in many ways, and so burdened with unnecessary detail and abstruse analysis, as rather to mislead the open-minded observer who is seeking facts only, and lead him to accept what may be erroneous or biased conclusions, thereby falling short of a comprehensive grasp of salient facts and truths.

It is quite common for those unfamiliar with school administration to compare large school systems with large business corporations.

It is submitted that a school system cannot be compared equitably in any sense with a business corporation. A school system is not a capitalized corporation, and therefore, does not exist for the purpose of producing a profit to stockholders, which is the object of a business corporation. On the contrary, its sole object is one of education; and its assets are not subject to depreciation or appreciation in the same sense as those of a business corporation. Its disbursements, aside from those for assets, are for the maintenance and operation of its properties, expenses of administration, and for such purposes as may be distinctly applied to educational cost.

In other words, the business of a school system commences to diverge at the point where that of a private corporation or business really begins, viz., after the conversion of cash into another and more workable form of asset.

Starting at this point, i. e., where the "plant" has been acquired, while a manufacturer may be able, by judicious buying of raw material and by the economical working of the same, to always produce finished articles at a minimum of cost, it would be absurd in the school system to limit the cost of educating, for example, a foreign-born, non-English speaking child to the per capita rate which might be found to apply to a child of educated American parents.

To attempt to accurately measure and compare the educational result, it would be necessary to consider relatively such factors as the education and instincts of parents, home life, and opportunities of the children, their mental and physical condition, their comparative ages, the duration of their school life up to the point of comparison, and the education they may have absorbed by contact, most of which elements are more nearly questions of individual judgment than of fact.

The only medium of educational measure appears to be an examination in certain subjects acquired by rote, and it would be manifestly absurd to contend that because two children had passed the same examination—and the educational result thereby determined to be the same—the gross per capita costs, should of necessity, be also the same. It would likewise be absurd to argue that equal per capita expenditures had produced equal educational results.

A practical knowledge of the foregoing conditions would seem to lead logically to the preparation of statistics based only upon facts, the sources and authenticity of which, as stated before, are beyond question.

There are certain facts and features which are common to all school systems, whether great or small, and when reduced to statistical form may be classified under a comparatively few heads, and yet when placed in parallel, furnish a vast amount of information available for purposes of true comparison; for instance, the accounts of properties, which may be indicated as follows:

1. Showing the conversion of cash into a property asset—purchase of sites.

2. Showing the conversion of cash into another property asset—school buildings and original permanent equipment.

3. Maintenance of such properties—annual cost of disbursements for repairs, replacements, etc. This item should be regarded as a practical offset to depreciation, in the sense that it should represent approximately the annual cost of upkeep, sufficient for the purpose of maintaining the school plant in at least its original condition of efficiency.

4. Operations of such properties—including the various items incidental thereto, such as janitorial services, sanitary supplies, machinery supplies and fuel for heating the building, etc.

Property items should be regarded as separate and distinct from the direct cost of education, and should not be included in any per capita cost, for the reason that, while such items of themselves are comparable to a degree as between school systems, any division of investment, maintenance or operating charges into per capita, either by themselves or in combination with directly educational charges, leads to incongruous and misleading results. For instance, let us take conditions in a great city and compare mentally the cost of a building and its site, in a strictly urban part thereof, with another in the suburbs with its more easily constructed building and less valuable site, but with similar seating capacity. Again, compare the same buildings so far as relates to the physical and educational use of the same. One may have facilities for an elementary school, lectures, playgrounds, cooking rooms, laboratories, workshops, baths, etc., the other building with same seating capacity, may merely contain the requisites for conducting an elementary day and evening school.

How could the cost be practically, and not theoretically, segregated into the several activities? And yet the proposition has been seriously advanced, and has even found favor in spots, where quantity of statistics is considered more desirable than quality and logical presentation of facts is subordinated to thoughtless desire to produce a mere arithmetical computation of useless character. It is quite possible to enter so largely into the statistical field as almost to render the production of statistics superior to or more important than the conditions or facts which give rise to them.

To a large extent the same principle applies to the maintenance and operation of the various school properties; such items should have no place in combination with strictly educational expenses, but should be treated separately—comparable in volume but not by unit. To emphasize this point, compare mentally a school building, occupied to the extent of its normal capacity, with another such building which is overcrowded. It would follow that the more congestion existed the lower would be the per capita cost of maintenance and operation, and from a statistical standpoint, the school building with normal conditions would suffer by comparison. In the foregoing example a single school plant has been taken as the unit for illustration, on the ground that the application of a false principle in one case is sufficient to emphasize the error in the whole.

Having treated of the school plant and the maintenance and operating expenses, the most important item of all comes into view, namely, the object for which the community has invested its money—public education.

What activities are maintained, and what are the items of tangible expense or cost which can be directly charged to each without entering into the realms of speculation or apportionment?

The main items of strictly educational cost comprise teachers' salaries, books, maps, stationery, supplies, libraries, etc., and may be applied directly to every educational activity, and, if such group of expenses becomes standardized, would be comparable as between all school systems throughout the land, from the smallest district to that of the largest city. Real, equal, and understandable elements would be brought together and the cost of educational activities could be compared function by function, without any mental reservation or feeling that incongruous factors entered into the figures.

With a fixed formula for the computation of attendance, and only standard items of expense common to all school systems included, educational per capita cost would cease to be illusive and would mean something.

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# A Decade of School Administration in Boston

By HON. DAVID ELLIS, Chairman Boston School Committee

The great reform of the decade in Boston school administration was the substitution on January 1, 1906, of a school committee of five for one of twenty-four. This created an organization of great potency and led to numerous important reforms. I can hardly hope to sketch them briefly, much less attempt their adequate relation in the time allotted me. I will, with your permission, do what I can within the limits set.

The new school committee began its administration by the abolition of sub-committees which were the agencies through which the old board had largely transacted its affairs. This not only resulted in the absolute publicity which now prevails as opposed to the older method of doing business behind closed doors, but necessarily required enlarging the functions of the school officials and strengthening their hands to a degree which meant a substantial reorganization of the whole system of school administration. These officials in view of their increased importance were placed upon tenure and were charged to a very large degree with the duties of the sub-committees of the old board.

The financial department of the school committee was at the outset completely reorganized. A board of apportionment was created to divide properly the sums appropriated for supplies and incidentals, and one official was appointed to buy proper requisitions, and another to audit the bills. Many effective systematic economies have been introduced. Coal is today bought at a price determined by chemical analysis, light and gas charges are much lower than they used to be, all purchases are made upon open competition and many other minor economies are now in effect. The main function of the business agent, an official created by the new school committee, is to classify expenditures and to act as its financial adviser. I invite your attention to his report, which shows as thorough a financial diagnosis of the system as does the report of any expert railroad accountant. The allotment with precision of the proper amount for expenditure for each item in advance is now under careful study by him and will soon be available. The school committee has not only attempted to handle well existing appropriations, but has also secured increased appropriations for the support of the schools.

The custody of schoolhouses and the supervision of the janitor force was placed by the new school committee in the hands of the schoolhouse custodian. The appointment of janitors must by law be made in conformity with civil service rules. The promotion of janitors, which is not regulated by law, has been placed by the new school committee upon a strict merit basis and their compensation has also in the last decade been put upon an automatic scale. All pull has in short been abolished from the field of appointment, promotion, compensation and removal of janitors. I invite your attention to a detailed examination of this system.

Various functions of sub-committees of the old board have been entrusted to the secretary. He now deals with all applications for the use of school premises under fair and uniform rules and has stimulated a widely extended use of school buildings and school yards. He now enforces properly and uniformly the rules and regulations of the school committee, with the result that a system which was notably decentralized, because of historical and administrative lack of cohesion, has been closely and harmoniously unified under just and uniform regulations.

The whole system has been symmetrically

articulated. The superintendent's term of office has been extended from two years to six years and his powers have in all respects been immensely enlarged. The supervisors have had their term of office extended and their name changed to assistant superintendent and their powers have been greatly increased. To the superintendent and assistant superintendents have been transferred substantially all of the functions of the sub-committees of the old board. Under the old regime the school system was administered by these sub-committees in general and by the division committees in particular. Today the educational side of the public schools of Boston is administered by the superintendent and the assistant superintendents. The powers of the principals have been enlarged. They have been invested with the right to pass such legislation dealing with their respective districts, not inconsistent with that of their official superiors, as they deem wise. The powers of teachers of all grades have been greatly increased and the teacher today, through the various teachers' councils and teachers' conferences, exercises far more proper influence than ever before. The result is that the scheme of school administration has been made a harmonious whole.

The school committee has earnestly aimed to improve the teaching service. It has in the last decade raised the standard for admission to the Normal school, from which most of our elementary school teachers come, created for the benefit of the pupils of that school a model observation and practice school, appointed a supervisor of practice to make this part of the work effective and upbuilt in many other respects as well the strength of this most important of all schools, the Normal school. The school committee has also appointed a supervisor of substitutes to observe and assist the Normal school pupils after graduation and before permanent appointment. It has, in short, created in this way an elaborate and well articulated system for the education, observation and assistance of young teachers. The entrance to the service has also been carefully safeguarded by the new school committee and all appointments of new instructors are now made upon a civil service basis. Comparative merit instead of pull determines appointment. Promotion of instructors in the service depends upon relative efficiency and increase in salary is now dependent upon the passing of various promotional examinations and not, as in the past, upon the mere ability to live and fill a place. The new school committee has taken other steps to stimulate efficiency in the service by creating a system of sabbatical years absences on half pay for the purpose of travel and study or rest, by arranging with neighboring colleges for the establishment of courses for the assistance of instructors in the public schools, and by the establishment of a maximum age for admission to the service as instructor of 40, and a maximum age of retirement from the service, of 70. It has also secured a pension for teachers whose years of faithful service entitle them to consideration when waning efficiency compels their retirement. The new school committee has, in short, endeavored to guard the entrance to the service, to better the conditions and to stimulate the efficiency of those in the service, and to make possible the retirement of superannuated teachers under proper conditions.

Important changes have been made in the elementary schools. The average number of pupils per teacher has been reduced from 53, which it was a decade ago, to 44, and the course of

study has been shortened from nine years to eight years. This latter reform involved the establishment of a new and better curriculum and the division of each class into groups progressing at different rates of speed. These have proved reforms of far reaching significance.

The moral development of the children has been carefully considered and in the reorganization of the truant officer's force, in the creation of the supervisor of licensed minors, in the establishment of the disciplinary classes, in the creation of the juvenile court through the initiative of the school committee, and in other important respects progress has been made in this direction.

No subject has received greater attention from the school committee of Boston in the last decade than has the health of the pupils. A department of school hygiene of broad scope has been established. Extensive playground activities have been undertaken. Systematic school athletics have been organized. Advanced courses in physical education have been established. Nurses have been appointed to co-operate with the school physicians. Systematic measuring and weighing of school children have been undertaken. Open air rooms have been established in many districts and an open air school has been located in a park outside the city. A careful study has been made by competent physicians of the health of the children attending the first three grades and their recommendations for bettering conditions are being carried into effect. A committee of oculists and electricians was organized to study the effect of light in the schools upon the children and under their expert advice improvements have been made in this direction. A medical inspector of special classes has been appointed to examine children whose normal mentality is questioned. Each child in one large division of the city has been examined to see whether it is a diphtheria carrier, for the purpose of endeavoring to stamp out that disease, and finally, with a view to emphasizing more forcibly upon pupils, teachers and community alike the value of good health, a health day has been established in the public schools of Boston. The new school committee has realized thoroughly the necessity of combating in the public schools the unfortunate conditions which surround child life in a great congested city and has done and is doing all in its power to remedy these conditions.

The necessity of further vocational training in the elementary schools has not been overlooked in the last five years in Boston. Experiments are now being conducted in various parts of the city in manual training, shop arithmetic, working drawing, design, shop work, tool and metal work, textile work, printing, bookbinding, shoe repairing, furniture making, cabinet making, metal working, sheet metal working, silver-smithing, hand and machine sewing, cookery, housekeeping and domestic science, and a committee on vocational advice has been established consisting of instructors within the service and of citizens from the community at large to assist the children in shaping their future careers upon graduation from the elementary schools. The foundations of progress along these lines are being rapidly laid and are likely to serve as the beginnings of great changes in the direction of making the elementary school curriculum prepare its pupils better for life in an industrial era.

The new school committee has, however, never failed, while it has been reaching out in the direction of the health, the morals and the vocational training of the children, to emphasize



those fundamental studies which have for many decades served as the basis of the public school system of a great country and which will always continue to constitute the bone structure of school anatomy.

In the secondary schools also important changes have been made. Those pupils who regarded the high schools merely as social centers are being eliminated under carefully formulated rules. Earnest pupils who are deficient in their studies are saved a year by attendance at the summer high school. Uniformity of instruction and economy have been promoted by a better classification of the high school teaching force. A number of the ill attended and, therefore, costly electives have been eliminated from the high schools and new courses of study have been established. The writer believes that no part of the public school system stands in greater need of reorganization than do the high schools, not because of any deficiency on the part of the high school masters, but because of the rapid change in conditions in this country in the last decade. Each school of secondary education ought, in my opinion, to be either cultural, commercial or industrial, long term or short term, in order to attain singleness of purpose and consequent greater efficiency at less expense per pupil. Some progress has been made in this direction. Purely cultural secondary schools we have always had. The high school of commerce to prepare boys for commercial life, the high school of practical arts to prepare girls for home making or for feminine occupations, have been established by the new school committee, and the mechanic arts high school, established seventeen years ago, has been devoted by the new school committee to the single aim of preparing its pupils for industrial efficiency instead of for higher institutions of learning as well. These are all long term secondary schools. Short term secondary schools have also been established, i. e., the trade school for girls, whose name explains its purpose, and the school of bookbinding and printing, whose aim is equally obvious. A short term clerical high school was also established, but the lack of funds has resulted in its temporary suspension. The new committee has appreciated that the ideal of democracy is the extension to the individual of the best possible opportunities and has endeavored in its five years of administration to approximate in the various respects outlined above this high purpose.

The continuation schools have also been approached by the new school committee with the same ideals as guides. In the evening elementary schools proper, in the evening elementary schools for non-English speaking people, in the evening elementary industrial school classes, in the evening high schools proper, in the evening commercial high schools, in the evening industrial schools, and in the part time day continuation schools for the wholesale leather and dry goods industries, a new departure in this country, the new school committee has reorganized and extended its system of continuation schools into a well rounded and effective whole. This, it is hoped, will constitute the basis for far greater extension along these important lines.

The establishment of the new school committee has, in brief, led to many reforms whose effects have been far reaching. The mere recital of them has constituted this paper. While their just exposition in true relation to the systems of the past and of the present and to the ideals of the future would exceed greatly the limits fixed, yet the large effects of the work may be pithily summarized. The whole system has been removed from the field of politics. The most helpful citizens in their particular lines have been drafted as advisers. The education-



HON. DAVID ELLIS  
Chairman, School Committee, Boston, Mass.

al and financial administration of the schools has been made moral and efficient. The selection, promotion and retirement of teachers, officers and other employes of the school committee have been placed upon the most liberal, progressive and meritorious lines. The welfare of the pupils from the point of view of their health and morals has been materially advanced. The educational opportunities afforded to pupils in the elementary schools, in the secondary schools, both long and short term, in the evening schools of various types, and in the other continuation schools, have been immensely enlarged, and in all branches—in the old studies which constitute the basis of all public school education, in the higher cultural subjects, and in those commercial and industrial fields which have become so important in this age—the public school system of Boston has not only kept abreast of the best school systems in the United States, but has, in some respects, it is hoped, helped to set the standard on this continent. The new school committee has, in short, purified and vitalized the public school system of Boston.

#### Home and School.

A problem which has been forcing itself to the front in the public schools of the country during recent years is that of bringing about a more intimate relation between the home and the school. Social centers have been organized in school buildings, lecture courses and other means of entertainment provided, evening schools for adults have been established, and in many other ways the home and school are being brought together. There is no reason why a larger use might not be made of public school buildings. The custom of many years has induced the conclusion that the millions of dollars worth of school property in the nation belongs exclusively to the children of the nation, and even school laws in many states are enacted in accordance with this view. The fact remains, however, that our schools are the property of the people, and from every just and sensible viewpoint the adult should share in their benefits and privileges. Every school building ought to extend large intellectual and social privileges to the people as a whole. While erected and maintained primarily for the education of our children, it should fulfill a much broader function in the community. Why should an institution, such as the public school, established by the people and maintained at enormous public expense, be closed to public use about eighteen hours out of every twenty-four, during one hundred ninety days of the year, and closed all the time during the remaining one hundred seventy-five days of the year? Surely there is opportunity

here for much larger returns. In many states, as we have stated, through more liberal laws, the school property is available for a far more extended use than in Pennsylvania. Every school ground should be open as a playground, under proper supervision, at least during the summer months, and every school building, at least on certain evenings during the cooler months of the year, ought to be available to the people generally, for round tables, reading circles, reading rooms, social hours, etc. This larger use of school property has been slow of realization, but is rapidly becoming fixed public policy.—*F. E. Downes, Harrisburg, Pa.*

#### The Efficient School System.

An efficient school system must be a living organism, always growing and developing to meet the needs of the everchanging social and industrial conditions of the community. An excellent school for one generation is usually not well adapted to the next. The aim of all education should be life, power and efficiency. But the conditions of life, the kinds of power and the expressions of efficiency, which have satisfied all demands upon us, are not likely to satisfy the demands which will be made upon our children. There must be progress or deterioration. It seems to be the universal law and schools are no exception. But progress means more than motion. It is quite as important to know which way to go as it is to move. The educational needs of this generation should be studied carefully, and such changes in the present school system made as will best meet those needs, condemning nothing merely because it is old and approving nothing simply because it is new. What has been may be respected until it stands in the way of what ought to be, then its going should occasion no regrets. That education is best which best prepares young men and women to put most into life, and to get most out of it, which enables them most completely to discover and develop their latent powers, whether of hand or brain, and which most increases the pleasure and efficiency of their service.—*Frank E. Parlin, Cambridge, Mass.*

#### The Choice of Teachers.

Teachers should be selected solely because of their merits as teachers—their fitness to do the required work. No true friend of the pupils or of the schools can desire the appointment or urge the retention of an incompetent teacher. Neither nepotism, political influence, nor any other form of favoritism has any proper claim here. They are an impertinence and a menace. Every candidate for the high and responsible position of teacher should present his qualifications and rest his case upon them. He should be honestly and fairly considered upon these qualifications, without any thought of irrelevant matters.

The influence of the teacher—the silent tuition of the school—is a much more potent educational factor than is generally supposed. In fact, with whom a child studies is quite as important as what he studies. Therefore teachers should be selected with care and assigned with wisdom, for few teachers are fitted for all positions.

The same principle holds in the case of those who have been good teachers and have done excellent service, but who on account of age or infirmities are no longer competent to meet the reasonable demands of their positions. They have served the community faithfully and well and deserve from it considerate and generous treatment, but the community should not try to discharge its obligations to them at the expense of the children. Justice to one party ought never to mean injustice to the other.—*Frank E. Parlin, Cambridge, Mass.*

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# SCHOOL ARCHITECTURE

How Some Problems Have Been Treated by a Southern Architect

By CHAS. W. CARLTON, Architect for the Board of Education of Anniston, Ala.

The authorities are coming to one mind as to the main essentials of schoolhouse architecture, but there are still a number of things upon which the doctors disagree that can only be settled definitely after further thorough investigation, experiment and discussion. The time will never come, however, when there will be no room for improvement. Theories that have become established facts through scientific investigations into the causes, spread, prevention and cure of diseases have been promptly appropriated by conscientious and progressive schoolhouse architects and applied where their benefits would be most practical and far-reaching. No architect who has given the subject enough thought to begin to appreciate something of the possibilities for good or evil to future generations of the human race, that may hang upon his decision as to any one of a large number of matters of apparently minor detail, can assume the task of designing a schoolhouse without a feeling of profound responsibility, that he experiences in no other line of his work.

Not one of the smallest details of schoolhouse design that is not of the most tremendous importance and worthy of the best specialist, and no man should undertake the work who does not sufficiently appreciate this fact to give himself the thorough special training necessary to enable him to safeguard the vital interests entrusted to him.

It is not my purpose to discuss here the general subject of schoolhouse architecture, but simply to tell how I have treated some of the problems in the course of my practice.

## No Inside Vestibule Steps.

I have never been able to conceive of any excuse for putting the entrance doors on the ground level and having the steps leading to the first floor inside the vestibule. In the Collinwood fire several lives were lost because a child fell on these inside steps, and when the teachers stooped to pick her up the pupils behind fell over the teacher. If those steps had all been outside the teacher and pupils would have been outside the building when they fell and could easily have been rescued. Put your entrance steps all outside the building. If there is any objection to this I would be glad to hear it.

## Corridors and Stairways.

Corridors leading to exits should be absolutely free from obstructions. Stairways should not be placed in the main corridors, because in the event of a panic with a rush for the exits, the weaker and younger pupils will be pushed in behind the stairways by the older and stronger. Stairways should be placed at opposite ends of the building and in separate wings, at right angles to main corridors. They should land on the first floor in immediate proximity to exit doors. Fire alarms should be by number, indicating the location of the fire so that, if one stairway is burning, the number of the alarm will indicate the direction to be taken safely. Panics would not ensue if the teacher knew by the number of the alarm just how to take the pupils away from the fire. The schools in Anniston, Ala., are adopting this system. The Leighton Avenue school recently burned to the ground and all the pupils marched out safely without the slightest indication of disorder or panic.

There should be enough stairways so that each one will not be more than four and a half feet wide. In designing stairs, be sure that you have a small round handrail on the wall side in addition to the balustrade on the open side. This is important. It helps going up and pre-

vents falling or being thrown down by those behind when coming down.

With the arrangement that I have tried to describe, and a reasonably good fire drill, there is very little use in spending money, that is usually so scarce, for fireproofing. If, in addition, the boilers are put under ground, twenty-five feet or more from the building, the fire risk will be practically nothing. Of course, boilers or furnaces in the basement should be in perfectly fireproof rooms.

## Foot Warmers.

The ordinary floor register is entirely inadequate for practical purposes. Children come to the schoolhouse in wet weather and go to classrooms and sit for hours with wet or damp feet because the lowest temperature in the room is at the floor level. I have recently introduced into all my designs floor registers eight inches wide by twelve feet long, with steam pipes running under the entire length. Each of these will accommodate easily twenty-four pupils standing on each side and placing one foot at a time over the register. Thus in a few minutes their shoes get warmed through.

I am sure it requires a higher temperature to make a room comfortable when the children enter it with cold feet.

## Ventilation.

I use and advocate the mechanical system of ventilation. Properly planned, it furnishes every pupil with a minimum of thirty cubic feet of fresh air every minute, no matter which way the wind may blow. If sufficient money is available, I warm the air with steam coils, if not, I use furnaces. The air is distributed to the various rooms, including the cloak room and toilet rooms, from a plenum chamber, through galvanized iron ducts entering the rooms about seven feet from the floor, and as it cools and becomes vitiated, it is driven out through ducts opening at the floor and leading out through the roof. No other system is comparable with this in efficiency.

## Windows.

Classrooms are lighted from one side only by windows reaching to the ceiling. I find no objection to hanging the sash on pivots so as to swing in at the top like transoms, but find some advantages to this method. They are easier to operate, make less noise and are less expensive. They permit of narrower piers between windows because the frames are plain, and have no weight boxes to take up space behind the face of the piers.

The shades are best made of light waxed muslin, similar to tracing cloth. One shade to each separate sash. These translucent shades cut out the glare of the sunshine without greatly decreasing the light. I consider them a necessity where correct lighting (unaltered) is used.

I use no wood casings around windows. The plaster is turned with a rounded corner into the jamb and stops against the edge of the frame. Of course, hard plaster is used.

Some architects continue to use round topped windows in classrooms. There is no excuse for this practice. It indicates either carelessness or ignorance, both of which render a man unfit for the important work of designing schoolhouses.

## No Baseboards Nor Wainscoting.

In all schoolhouses I use the most approved methods of sanitary hospital construction on the interior. There are no baseboards nor wainscoting. The plaster is brought down to

a solid wooden cove at the floor. The cove forms the ground line for the thickness of the plaster on the walls and turns out at bottom flush with the surface of the floor which is driven tight against it. This eliminates sharp corners and angles where dust would be difficult to remove.

A narrow (three-inch) plain casing, with rounded edges mitered, is best around doors. Doors that have no panels, but present a perfectly smooth surface cost a little more than the ordinary panelled door, but are worth more from a sanitary point of view than the difference in cost.

I prefer plastering finished with hard, white, smooth finish, with all corners and angles rounded and coved. A dado about four and a half feet high should be of a darker, more restful tone than the side walls above. The ceiling should be white. All the painting should be oil paint in the flat without gloss.

## Toilet Rooms.

Toilet rooms should be located on each floor where their use or abuse can be regulated by the teachers. They should be ventilated by the same method used for the classrooms, and the volume of air in them changed at least eight times an hour.

In my opinion, the perfect toilet fixture has not been invented as yet. Nevertheless, I prefer one of the several good automatic closets so arranged that when the seat is pressed down the force of the water compresses the air in the tank, and, when the seat is released, flushes the bowl automatically. They have no screws, valves or other mechanism which the pupils can tamper with.

## Cloak Rooms.

Cloak rooms should be placed as near the outside entrances as possible. They should be ventilated the same as the classrooms. I am obliged to differ in one particular as to the ventilation of cloak rooms from one of the foremost school architects of the country. I do not think it is sanitary to vent the classrooms through the cloak rooms. The air, when it leaves the classrooms, has become vitiated and possibly laden with the germs of disease, hence it seems to me that there could be no surer way to spread contagious or infectious diseases than to introduce this air into the cloak rooms to be used in drying and ventilating the garments there.

Many cloak rooms are still planned with one door into the classroom and the other leading into the corridor. Of course, the requirements in this respect depend upon the particular methods of conducting the school. We find it best to have two doors, both opening into the classroom, and no door into the corridor, except in such places where they would be of great advantage in leading directly by a much nearer route to exits in case of fire. The pupils march into the cloak room from the classroom; each gets his coat and lunch basket and marches back through the other door and takes his place at his desk. When all have taken their places, if there are no complaints, they march out in the ordinary way. If one child has taken another's property, the teacher has a chance to straighten the matter out while the pupils are still within her jurisdiction.

We appreciate the copies of the School Board Journal received at this office and regard it as about the most useful educational journal published.—F. M. Bralley, state superintendent, Texas.

udies.



# THE AMERICAN School Board Journal

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## CRITICIZING THE SCHOOLS.

Teachers, like other professional men and women, are their own harshest critics. At the same time they bear a peculiar resentment against derogatory expressions on the value of their work when these expressions come from laymen, from the press and the platform. Still, the great majority of laymen get their cue as to the evils and shortcomings of the public school system more largely from statements of teachers and educators generally than they do from their own experience or observation.

The daily press has again found an apparent justification of its attacks upon the schools in the recent convention of the National Education Association at Boston. A few editors have not hesitated in turning upon the educators assembled for their iconoclastic rather than suggestive attitude toward present problems of the school. One suggests that Mrs. Young cannot introduce a better innovation in the program for next year than to forbid speakers from condemning conditions unless they have a well tried remedy for the evils they find.

In justice to the school men it must be said that the tone of the criticisms made at Boston was in the vast aggregate constructive and helpful rather than destructive. The daily press avidly reached for and printed extracts of addresses in which "roasts" appeared. They omitted many of the best sections of the thoughtful, well-tempered papers which included directions for bettering instruction in all its aspects. In fact, the school critic in Boston differed from the lay critic in this one particular: They were experts with an intimate knowledge of the matters they discussed and they had definite remedies to offer for the shortcomings they saw. Their suggestions appearing in the annual volume of the association may well be studied by the profession and accepted by boards of education in molding the school policies of the United States.

The occasion suggests, however, that more temperate language might be employed by some of the eminent men who spoke of the schools as producing "spineless" individuals, who characterized the flag as meaning nothing, etc. Criticism will be just as effective if leavened with moderation.

## MODEST SCHOOL HOUSES.

The large cities of the United States are continually facing difficulties in the housing of children who wish to attend the elementary public schools. New York City, Philadelphia and Chicago are examples of large cities in which thousands of children are compelled to attend school but half the time, while the authorities admit themselves unable to catch up with the ever-increasing demand for room.

In a number of cities the school boards are unable to solve their problems because of a

lack of funds; others, even though they have sufficient money at their command to put up schools which will take care of all the children, cannot build fast enough to meet present needs. The latter claim, however, that the present tendency of making schools very large and of equipping them with rooms for many of the newer studies, makes it impossible to complete buildings within a reasonable time.

If their statements are correct, it would appear necessary that they radically change their methods of adopting plans and awarding contracts. Public business is far slower than that conducted by private corporations or individuals. Our postoffices and other national governmental buildings are examples of slowness in construction which is ridiculous in comparison with the rapidity with which a modern office building or factory is rushed up. Our school building authorities could well learn a lesson from architects and builders employed by the large investment companies in the expeditious handling of building matters.

It has been suggested, and not without reason, that our school buildings should be more modest in their proportions. As Mr. R. Clipston Sturgis pointed out in an address before the N. E. A. in Boston, we are only beginning to work out true standards of economy in the construction of our schoolhouses. It is true that we have well defined rules for classrooms, stairways, ventilation, lighting, etc. We do not generally recognize, however, that the total area of a building and its cubic contents should bear a distinct relation to the area and cubic contents of the actual usable classrooms which it contains, above which we cannot go without wasting the public funds. The same is true of the ground area of schoolhouses and of other more complicated problems in the arrangement and sanitation of school buildings.

The planning of schoolhouses is one of the most important branches of architecture, in which the people as a whole should be interested, because in schools are invested more public money than in all other classes of public buildings put together. Standards of planning, equipment and sanitation are worthy of the most careful study so that children may be housed in structures which are from economic, pedagogic and health viewpoints adequate and complete. Methods of selecting architects, of facilitating construction and of placing buildings where they will serve the needs of the district are no less important. School boards can best serve their constituencies in this matter by calling to their aid the best technical talent.

## SCHOOL BOARD CONVENTIONS.

There are in existence throughout the United States about fifteen state associations of school boards. The oldest of these, the New York association, which about five years ago passed out of existence, was a voluntary organization inspired by progressive school board members of the state. The Pennsylvania school board association was created by the state laws and is today the most active in the country. In Michigan and Indiana progressive joint associations of superintendents and school board members have done much for education and schools of the state. In Ohio there is a voluntary state association called by the state superintendent of public instruction for which all in attendance receive mileage through state funds. In Louisiana there is the model association of the south which undoubtedly is one of the strongest influences for better schools in the state. In Wisconsin, Pennsylvania, Michigan, etc., the county superintendents call a meeting of the various boards of education of each county, for which the local district supplies mileage and a per diem for expenses.

Connecticut, Washington, the Dakotas, Minnesota and a few others have state organizations.

This briefly outlines the state associations throughout the country. These divide themselves into the purely voluntary organizations, and those inspired by state laws. The former are practically all state associations. The latter are divided into state organizations and county organizations. Practically all school board associations are independent or meet only jointly with superintendents of schools. In their conduct professional men, principally the state superintendent of schools, leads. Programs are prepared by him, topics of discussion suggested, invitations issued and reports printed. Up to the present it cannot be said that the idea has taken firm root in the minds of school men. A beginning has been made, and much credit is due all beginners.

The chief obstacle in the way of strong state and county associations of school boards is the changing complexity of their membership. The average life of a school board member is about two years. During this time he has been struggling to familiarize himself with the idea of education and the function of a school board. When a successor takes his place he starts not where the outgoing member left off but at the very beginning. Another obstacle is the limited amount of time at the disposal of the average member for school board work. American business and professional men are usually pre-occupied with their own affairs and sacrifice much time for board and committee meetings. Conceit and self-satisfaction play a part, in that so many school board members feel that knowing their own business means knowing the schools and their work. Superintendents of schools are important factors and while not always enthusiastic can do much toward promoting the work. A strong superintendent will welcome all ideas meaning better and more improved schools.

With the coming of fall every school board in the country ought to plan on some meeting for the improvement of its membership. If not all the members can attend, a few ought to be delegated with instructions to report in writing to the board. This will bring the board into touch with the very pulse of the situation. But—nothing need be said about the value of conventions. We acknowledge them now as necessities and their work as invaluable.

Attention is called to the wide variety of boards of education and their functions. No two boards are exactly alike. The greatest divergence is found in the methods of doing things. The matter of records, the manner of adopting textbooks, the purchase of equipment, etc., need only be referred to to illustrate the point. Of course, this is a result of our independent state and local governmental organizations.

The experience of one board exchanged for the experiences of other boards will crystallize ideas for the improvement of every school system of the country.

## A STEPPING STONE?

During the past few weeks Robert J. Ale, state superintendent of public instruction of Indiana, has been selected president of the University of Maine. This adds another name to the roll of those who during the past decade have resigned a state superintendency of schools to accept the presidency of a university, college, normal or private school. The changes have in every case been for the best. They have meant greater permanency, less aggravation, no annual or biennial election, and most always as much or more salary.

To the observer these changes have been numerous and interesting. Reference need only be made to a few such men as Alfred Baylies



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Buffalo teachers after better salaries.



Georgia schools seek better compulsory school laws.



When the schools open.

of Illinois, who a few years ago became president of Western Illinois State Normal; Fasset A. Cotton of Indiana, now president of the State Normal, Oshkosh, Wis.; J. W. Olsen of Minnesota, now president of the new State Agricultural College; J. G. Crabbe of Kentucky, recently elected president of the Eastern State Normal; R. B. Cousins of Texas, now president of Northern Texas Normal College; J. B. Aswell of Louisiana, now president of State Normal, Natchitoches, La.; John H. Hineman of Arkansas, now president of Henderson College; J. J. Bishop of Nebraska, now president of State Agricultural College at Ames, Ia., and others.

When we read these names the thought strikes home there must be a reason for this continued shifting. The state superintendent is often elected in a blaze of glory. The campaign has been spectacular and the honors flattering. Then there is a reaction. A realization of the uncertainty of the office becomes apparent. There is constant friction between various factors with but restricted authority to act. But the day of re-election comes with its worry and politics and its attendant expenses which eat into salaries with a vengeance. Then comes an offer for the presidency of an established institution. The term of office is for life. The duties are clearly defined. The authority is final. The friction is only such as is naturally found in any of the vocations in which man must earn a living. The salary may be fair only, but the future offers more, with no campaign expenses—and the offer will be accepted.

It is thus evident that the trouble is in ninety cases out of a possible hundred more with the office than the men. The state superintendency is not by any means what it ought

to be. It lacks that dignity found in other educational positions of equal importance. It is contaminated by politics. The rural schools become the objects of the state superintendent's attention. The larger cities wriggle for independence. The superintendents in the larger cities who are often the state superintendents professional equal look down on the office and the damage is done.

This is a very regrettable state of affairs. The office of state superintendent of schools ought to be a preeminent position. In the light of all theory and of recent court decisions that education is a state not a municipal function the office ought to be clothed with becoming dignity. Then, too, the organization ought to tend to great freedom of action and more power with judicial, administrative and executive authority.

While the movement is not very apparent a beginning in this direction has been made which will become more effective as time goes on. In New York the office of state school commissioner has been clothed with fitting dignity and is respected throughout the country. The salary is good, the term of office is life, the duties are interesting and varied and permeate all sections of the state. In connection with the office is a department of education well organized and capable of good work. It is one of the best beginnings and ought to be a lesson for every state in the Union.

#### ORDER OUT OF CHAOS.

The unsatisfactory condition which has prevailed in the vacuum cleaning field during the past few years is rapidly growing better. Since the rise of the industry various manufacturers of machines have made use of each other's ideas in a manner that frequently left the purchaser

liable to embarrassing infringement suits.

Recently a number of the leading patentees have relinquished their rights to a large eastern concern and the most important manufacturers have entered license agreements which will greatly clarify the situation. The news will be a welcome one to school boards, many of whom have hesitated in the selection of these sanitary devices because a well grounded apprehension against unpleasant entanglements.

The members of the board at Delphos subscribe for the SCHOOL BOARD JOURNAL—and at each meeting devote some time to a round table discussion of the articles it contains.—*Ohio Education Monthly*.

The support of the schools nowhere depends upon the wealth of the community, but always upon the appreciation of public education. The man who claims that his district is too poor to maintain good schools is not only mistaken as a matter of fact, but he also perpetuates his own and his neighbor's poverty; for, although a few rich men dwell among them, his people, under the conditions of modern life, must remain comparatively poor until his doctrine is abandoned. There are sister states in the Union whose bitter experiences have proved the impoverishing effects of the doctrine that they were too poor to afford good schools. For years men and wealth steadily flowed from them, until the tide was turned, at a time when they were poor indeed, by instituting that taxation for public education which they had so long fatuously refused.—*Arthur Lefevre*.

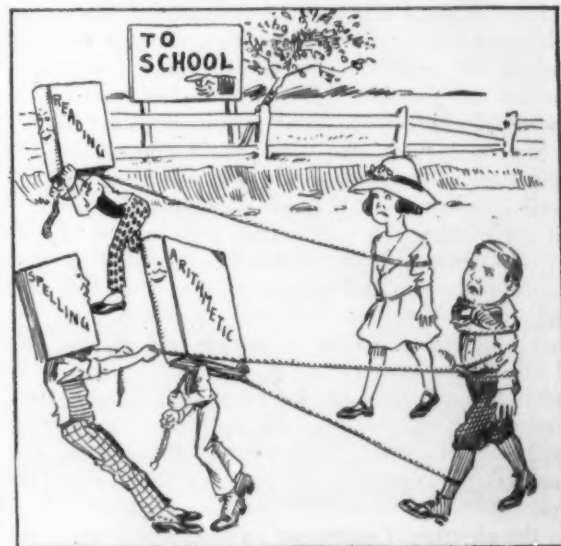
Youngstown, O. The school board has increased the salaries of its truant officers to \$85 per month.



Superintendent Blodgett dead.



The Philadelphia schools ask for funds.



Drawn back to their studies.





### School Districts.

Under the California political code (sec. 1576) providing that each city or incorporated town, unless subdivided by the legislative authority thereof, shall constitute a separate school district, outside territory belonging to a school district becomes, on inclusion within the boundaries of a city, part of the latter's school district.—Frankish vs. Goodrich, Cal.

Under the California political code (sec. 1670) prior to its repeal in 1909, and other related sections, a high school district, so far as its territorial limits are concerned, is not a distinct entity from the school district, and, when the school district loses part of its territory by the inclusion thereof within the corporate limits of a city, the high school district also loses the same part of its territory.—Frankish vs. Goodrich, Cal.

The Illinois school law (art. 3, section 44) provides that, if the majority of the votes at an election held to decide as to the discontinuance of a township high school shall be in favor of discontinuance, it shall be the duty of the trustees to discontinue the school and turn its assets over to the school fund of the township or townships interested therein in proportion to the assessed valuation of such townships. *Held*, that where taxes for a high school district have been collected, and after dissolution of the school are in the hands of the township treasurer, the proper official to hold them for the high school district, when it was in existence, and the proper official to hold them for the subsequent public authorities, the taxes and other assets, if any, of the high school district, are properly subject to payment of the legal obligations of the high school district.—Chalstran vs. Board of Education of Knox County, Ill.

The trustees of the high school district upon dissolution of the high school have not only the power to divide the assets, but, in order to divide them proportionately among the townships entitled thereto, they should previously settle all liabilities against the high school district, and the district may sue and be sued after the vote in favor of discontinuance; the board of education thereof being the proper defendant in an action by creditors of the former district.—*Id.*

### School Elections.

The revised laws of Minnesota of 1905 (sec. 1311), providing that in common school districts embracing ten or more townships, the trustees shall be elected biennially at the general state election, two trustees at every such election, the term of office of one to commence August 1st in the year following his election, and that of the other August 1st in the second year following his election, is not void, because making no provision for nominating candidates, and because of no provision as to how the names of candidates shall be placed on the ballot, or as to who shall supply the ballot boxes and other election supplies, name the election of judges and clerks, and establish precincts and polling places; such matters being fully provided for by the general election law, which, in so far as it reasonably may be incorporated into section 1311, is a necessary part thereof.—State vs. Reusswig, Minn.

In the absence of statutory authority, a board of education is without power to discipline its

employees by the imposition of a fine.—Farrell vs. Board of Education of City of New York, N. Y. Sup.

### School Employees.

The statute providing the method by which notice of a special meeting of the school board shall be given, must be obeyed.—Johnson vs. Dye, Mo. App.

The charter of Greater New York (section 1100) provides that "the board of education may investigate, \* \* \* either in the board or by a committee of its own body, \* \* \* the conduct of any of its \* \* \* employees; \* \* \* and for the purpose of such investigation, such \* \* \* committee and its chairman shall have \* \* \* all the powers which the board of education has or may exercise in the case of a trial under section 1093." Section 1093 prescribes the requirements of law regarding the trial of a teacher or a principal of a public school, and the penalty which may be imposed on one found guilty on charges preferred against him, and provides that "such penalty or punishment shall consist of a fine, suspension for a fixed time without pay, or dismissal." *Held*, that a janitor of a public school is an "employee" of the board of education within section 1100, and may be tried and fined as a teacher or principal could be under section 1093.—Farrell vs. Board of Education of City of New York, N. Y. Sup.

The charter of Greater New York (laws 1901, c. 466, sec. 1068), providing that "the board of education shall have power \* \* \* to enact by-laws \* \* \* for the proper execution of all duties devolved on the board, its members and committees, \* \* \* and for the promotion of the welfare and best interest of the public schools \* \* \* in the matters committed to its care," authorized the adoption of by-laws providing for the imposition of a fine on a janitor of a public school building for a violation of proper rules and regulations.—*Ibid.*

A contract of employment between a school board and the janitor of a school building does not exempt the janitor from the operation of by-laws, subsequently adopted, regulating the duties of janitors and providing for a fine for the violation of such regulations.—Farrell vs. Board of Education of City of New York, N. Y. Sup. 1910.

### School Taxes and Funds.

Under the Washington laws of 1893 (c. 109, sec. 3), making it unlawful for the directors of a school district to contract an indebtedness against their district in excess of a sum equal to the last quarterly apportionment next following the date on which taxes become delinquent, etc., a contract by the board for the employment of a school teacher, made after the limitation of indebtedness was reached, was void.—Wolfe vs. School Dist. No. 2, Columbia County, Wash.

The maintenance of a public school throughout a school year of eight months, is not such a necessity as to warrant school directors in overriding statutory and constitutional limitations as to the amount of indebtedness a school district may lawfully incur.—*Ibid.*

Under the Kentucky statutes, section 4426a authorizing the county board of education to purchase, lease, or rent school sites, to build, repair, and rent schoolhouses, purchase school furniture or other apparatus necessary to the conduct of the schools, the board may expend the school funds in its discretion for all the educational needs of the county, and so long as the discretion is not abused or is reasonably exercised, it will not be interfered with by the courts.—Fiscal Court of Logan County vs. Board of Education, Ky.

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Under the Kentucky statutes, section 4426a, conferring on a county board of education control of the educational interests and needs of the county, it is the duty of the board before asking the fiscal court for a levy for educational purposes to estimate the amount which in the judgment of the board may be needed for that purpose, which request, if within the prescribed limit, must be complied with by the fiscal court.—Fiscal Court of Logan County vs. Board of Education, Ky.

Territory of a school district, which, by inclusion within city limits, becomes part of a new high school district, is taxable in the latter district only.—Frankish vs. Goodrich, Cal.

Where, in an election for the submission of a proposition to the voters of a certain locality, forms of ballot are prescribed by the legislative enactment providing for the submission, a ballot cast therein, which is in substantial accord with the statutory form, and which clearly expresses the intention of the voter in relation to the proposition voted on, will not be rejected or disregarded because it is not in the exact statutory words, and hence, where an election was held in a school district to decide for or against local taxation for public schools, under acts 1906, p. 61, providing that those favoring local taxation shall vote "for local taxation for public schools" and those opposed "against local taxation for public schools," ballots cast by qualified voters, having printed or written thereon "against local taxation for schools," sufficiently expressed the voter's intention and should be counted.—Du Pre vs. Cotton, Ga.

A taxpayer and citizen of a school district having children of school age, cannot sue the officers of the district to question the propriety of their public acts on the ground that such acts will make it less convenient for him to send his children to school.—Farrimond vs. Coalgate School Dist. Okla.

### Teachers' Employment.

Under the California political code (sec. 1793), conferring the right of indefinite employment upon those who are the holders of city or county certificates, the right is conferred only as an incident to the holding of a city certificate as distinguished from a county, state, or special certificate.—Loehr vs. Board of Education, Cal. App.

The law recognizes but three school grades, namely, primary, grammar, and high school; and certificates authorizing teachers to instruct in these grades qualify the teacher for service only in the grade or grades covered by the certificate, hence it is in the statutory sense that the court must regard the term "grade" when seeking a limitation upon the powers of the board of education to transfer and assign teachers.—Loehr vs. Board of Education, Cal. App.

In the absence of a certain constitutional or statutory limitation, boards of education may exercise an unlimited discretion both in the employment and dismissal of teachers, and in their transfer and assignment.—*Ibid.*

Political code (sec. 1791) defines the general powers of city and county boards of examination. Section 1793 provides that holders of city or county certificates are eligible to teach in the cities or counties and counties in which the certificates were granted, in schools or classes of grades corresponding to the grades of their certificates, etc. *Held*, that teachers

(Concluded on Page 23)



# BUILDING AND FINANCE.

Cincinnati, O. The school board has accepted plans for a new public school building, to be known as the Guilford school, which will be unique. It will be fitted with a running track on the roof and a gymnasium and swimming pool in the basement.

The building committee of the New York City board of education is opposed to a reduction in the size of classrooms for upper elementary grades even though all sittings in the standard size rooms are not usually occupied. The stand of the committee was recently taken in considering a suggestion that the shortage of sittings in the schools, might be overcome if the rooms were made to vary in size so that the number might be increased to the benefit of crowded lower grades. The committee says:

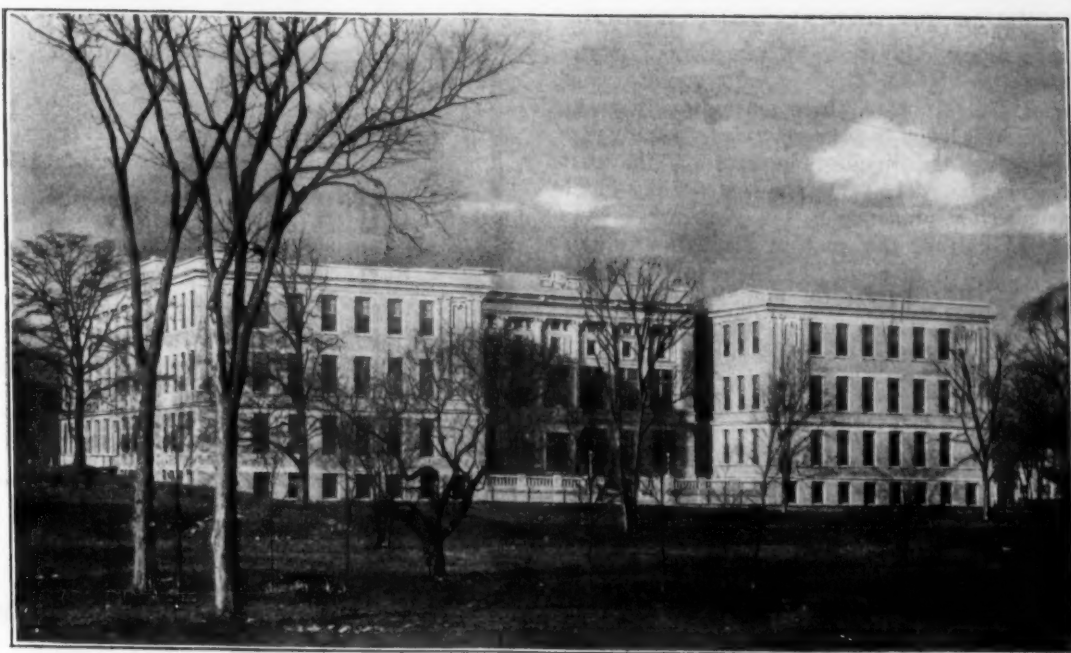
We have had abundant experience with rooms of different size in our older buildings. Instead of aiding in the economical distribution of pupils, they have been a hindrance. They have proved a menace to the health of our children and an obstruction to their orderly progress. It is extremely unlikely, therefore, that the board of education will authorize any departure from the German standard size for all classrooms, 22'x30', or its equivalent.

1. Inasmuch as desks and seats have a direct ratio to the size of the pupil, it is found that a classroom which is sufficient for fifty pupils in the lower grades is none too large for forty pupils in the upper grades. It is not safe to furnish any room with less than forty desks and seats, as the average number of pupils to a teacher exceeds that number.

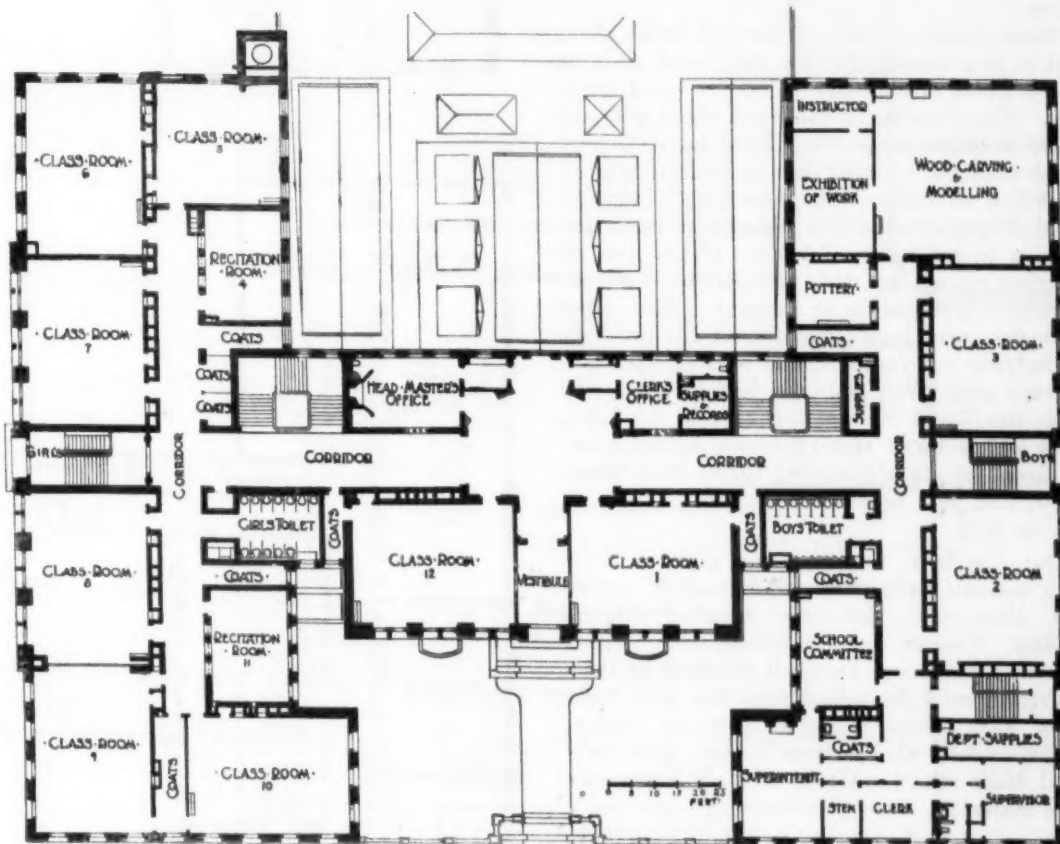
2. The size of classroom and desks, the width of the aisles and the space for the teacher have been reduced, for economic reasons, to the lowest possible dimensions consistent with hygienic rules and educational efficiency.

3. Owing to constantly changing conditions of population and the necessity of frequent change in the organization of schools to meet these new conditions, there is no certainty that, were small classrooms constructed this year for upper grades, these same rooms would not be needed next year for larger classes of lower grade pupils. The consequent changes in construction and furniture would be both difficult and expensive.

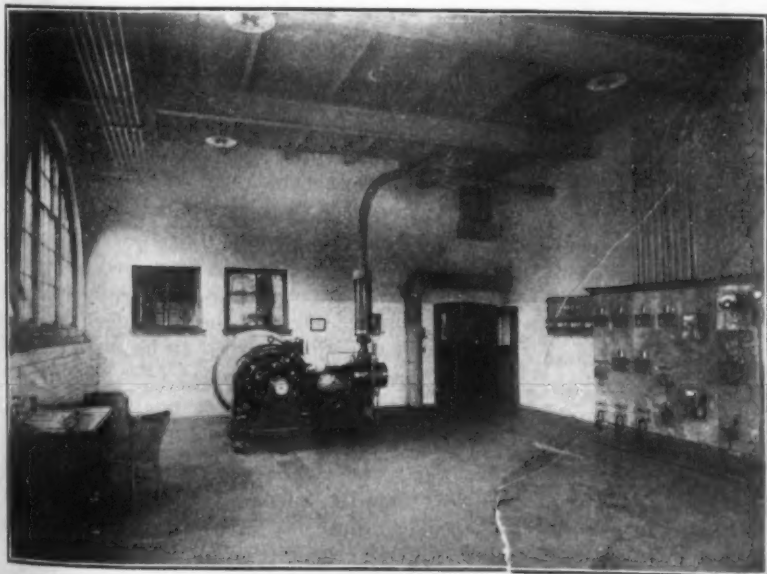
4. The architectural difficulties and expense of construction are greatly increased where rooms in a large building are made of different sizes. The presence of flues and conduits in walls and partitions, and the necessity for a consistent plan of fenestration to conserve the eyesight of pupils and teachers, make the provision of classrooms of different size extremely difficult and expensive.



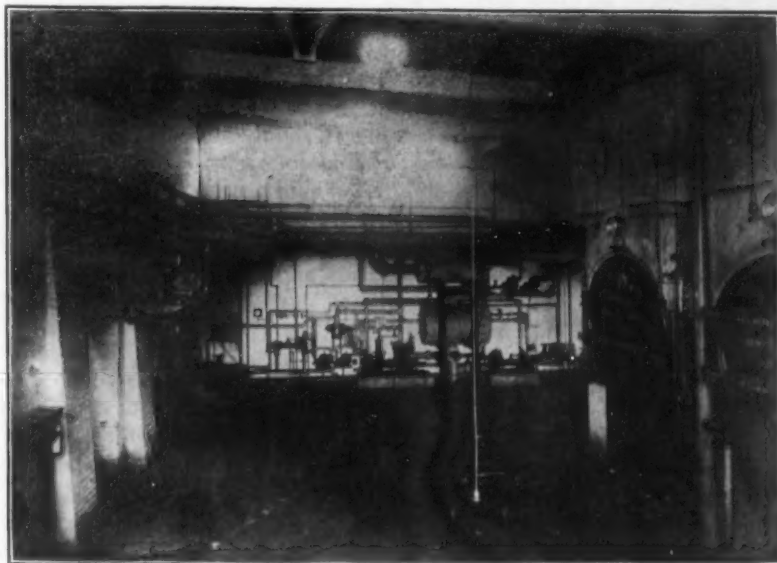
TECHNICAL HIGH SCHOOL, NEWTON, MASS.  
Geo. E. Newton, Architect.



PLAN OF MAIN FLOOR, NEWTON TECHNICAL HIGH SCHOOL.



ENGINE AND DYNAMO.



BOILERS.

POWER PLANT, NEWTON TECHNICAL HIGH SCHOOL.

### NEWTON TECHNICAL HIGH SCHOOL.

Secondary education in the United States appears to be on the eve of a great transformation. In fact, there exist already scores of high schools whose courses of study are awakening the liveliest interest on the part of educators. These are the institutions which are making preparation for life rather than general culture the goal of their instruction. And, the best of them like those in Cleveland, Springfield, Los Angeles and Newton, which last is illustrated in these pages, are not neglecting in the least the academic and the cultural studies, but are "weaving into them a practical training involving modern industrial and domestic activities."

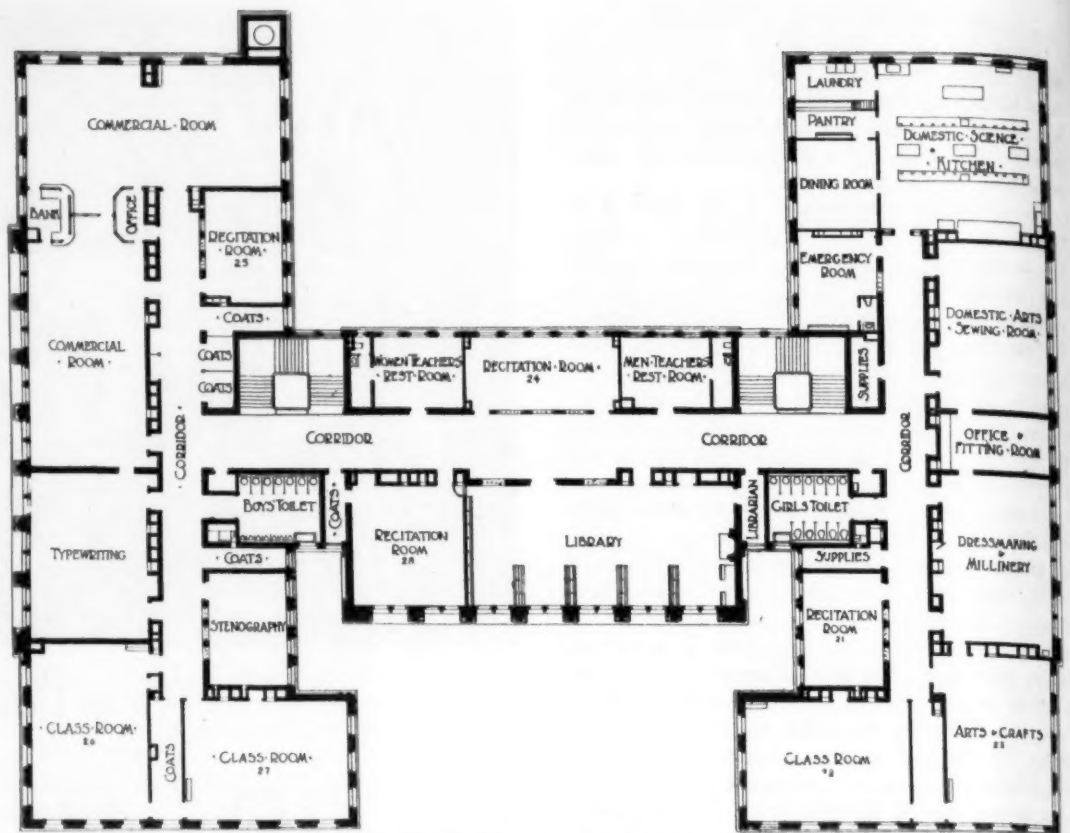
Discussing the purposes of the Newton Technical high school, Mr. Charles L. Kirchner, its principal, writes: "While the technical high school gives a general education, the same as the academic high school, it is intended to give boys and girls a high school education with the aid of manual or technical training." The manual or technical subjects are given for the knowledge or power to be gained through them, just as history and chemistry are given for the knowledge and power to be gained through them.

Some minds are trained through books alone, but it is a recognized fact that hand training has a great disciplinary value for mind training. The training of the hand along with the mind is training the whole boy, the whole girl. Such complete training does more than to make a skilled craftsman—one becomes a judge of good design, construction and careful workmanship, a better judge of labor. Herein lies its greatest value; not that the girl or boy may become a dressmaker or carpenter, but rather that they may better understand the problems underlying our industries as well as the value of time and labor, and thus become wiser and more intelligent directors of labor in the home, office and factory. Hand training, in this sense, is given for its educational value, its cultural value, and as a by-product we have a "handy" boy or girl.

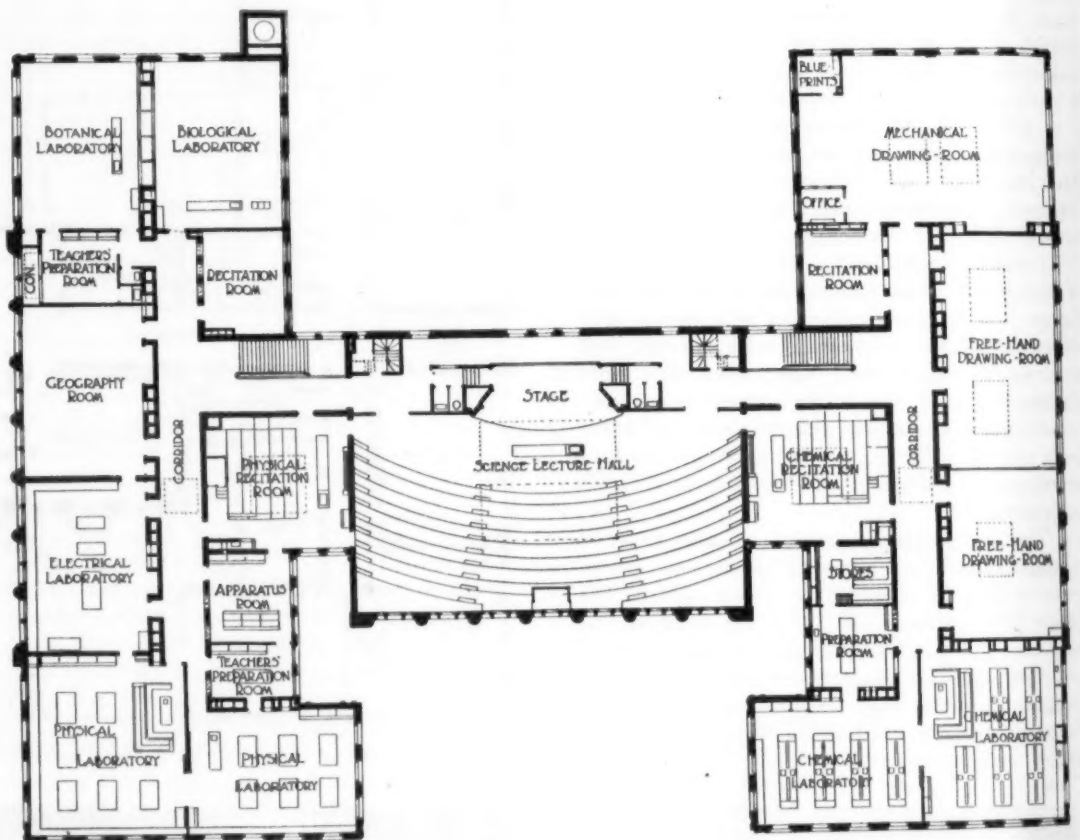
Our aim is to put boys and girls in touch with modern industrial and household activities, along with the more so-called cultural studies. Present day conditions tend to keep boys and girls away from all thoughts of these activities until the school days are over. The usual high school tends to give the student an experience wholly from books. The technical high school adds to this an experience with materials.

Boys and girls love to handle material, to cut and form it, and to make things. There is a training and experience in doing this that can be gained in no other way. Going back two or three generations, the household itself accomplished this, as it was an industrial center. All that was necessary in the way of food, clothing and other necessities were raised, made or obtained in or about this home. Each one in the household co-operated and was responsible for his share of the work. The children would watch the processes from the raw material to the finished product, and as they grew older, would gradually break into the activities and share in the general work. Our present day conditions have changed all this. The boy or girl of today does not have the chance to become useful; neither today have they a chance to watch men engaged in the industries. Boys find "no admittance" on the factory doors; girls practically find the same thing on the kitchen doors.

Thus has the technical school sprung up to assume the right to take the place of the old household, to train and cultivate its students in an industrial atmosphere. Its object is to



SECOND FLOOR PLAN, NEWTON TECHNICAL HIGH SCHOOL.



THIRD FLOOR PLAN, NEWTON TECHNICAL HIGH SCHOOL.

train for order and industry, that the boys and girls may grow up feeling a responsibility to produce and to respect labor.

The school does not attempt to teach any specific trade, but rather to give a broad, general experience and insight into many lines of work, as of old. There is also something more to the shop work than just shaping wood, iron or cloth. Each article to be made must first be planned and thought about. The artistic finishing or combination of colors is the applied art side of the work. A great deal of time and emphasis is placed upon designing and upon artistic finish.

The technical work is not intended to rob the student of his academic work, but on the other hand, to strengthen it by making application of principles learned. The amount of book

work in many of the courses of the school does not differ materially from that given in the ordinary high school. All the book subjects usually found in a high school are given in a technical high school. Generally, more attention is paid to the sciences than the languages; but electives are given to admit of any desired course. While the technical work is that much additional work, it is not an added burden, but comes as a relief from the routine schoolroom work. We rest not through idleness, but rather through change of occupation.

In the courses for girls the household activities take the place of the shop work for boys. The aim is to create a respect for the home. The work may be classified under these heads: food, clothing and the home. Under foods, a scientific study is made of foods

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and food values; buying and the preparation of food as well as serving it. During the course the girls alternate in the capacity of mistress, maid, cook and laundress. In this way she views the subject from every standpoint. Home nursing is included and the work is very practical.

Under the subject clothing, is the planning, designing and making of clothes. Starting with plain sewing, the work advances through designing, measuring, drafting, cutting and finishing garments. The work is practical and includes the selection of materials in relation to cost, to laundering and service intended. Millinery is also included and designs are carefully preserved.

The house is considered from the first planning to the finished home. A study is made of the several rooms, and each is considered in regard to service, finish, style of decoration, furnishing and costs in each case. Under decoration the girls are taught to design tapestries, hangings, etc. Wood carving and pottery are also introduced. The managing of the household is placed upon a more scientific basis, and it is really a study of household economy. It is a study of the home and all that implies, to the end that girls will look with pleasure and delight upon the work. It enables them to plan and manage in a happier, healthier and more economical way.

The boys' work includes woodworking, wood-turning and cabinet making, forging, including ornamental iron work, also hardening and tempering of steel, brazing, hand and machine working in iron, steel, brass and sheet metal. Mechanical and free hand drawing is given in considerable amount. There is not time enough spent in any one line of shop work for a boy to become a master of it; but he does acquire a knowledge of and degree of skill in the several branches that are of great practical value to him.

We offer several courses of instruction, and each is designed for some definite aim of the student. (1) The technical course will prepare students for college schools of technology and normal schools. Many of the higher technical schools give students credit for shop work and drawing; and a student will thus save some time in college which may be applied to other college studies. With electives this course furnishes a broad, general course for bright boys and girls who do not expect to go to college, but who wish to get the best high school training possible.

(2) The extra technical course. A course rather more "shoppish" than bookish, a strong course for boys and girls intending later to enter some apprenticeship or start in some one of the productive industries. This course allows considerable latitude in choice of work for the last year. During the last year a student may specialize in some line of technical work, as drafting, machine work, electricity, dressmaking, designing, etc.

(3) The fine arts course, planned for those students who have a love for drawing and fine craftsmanship, and who desire to make some fork of art work a profession or study.

(4) The commercial course, combining a strong, high school education, with training in business practices and methods, including indexing, filing and other devices. The usual commercial subjects—stenography, typewriting and bookkeeping are given. Shop work, household economics and drawing are electives.

Even a cursory glance at the plans of the building will show that the school differs widely from the ordinary high school. Shops, laboratories and work rooms rather than recitation rooms predominate.

The exterior is a dignified adaptation of the

classic, in gray brick and limestone. The general shape is that of the letter H. The court between the wings is 88 feet wide and the front measures 233 feet over all.

A corridor twelve feet wide runs straight through the building connecting with the main entrances and the wing corridors, and terminating at either end in the student's entrances. Directly opposite the public entrance are the administrative offices of the principal and his clerk, with record and supply rooms. Ten classrooms each capable of seating forty-eight pupils, two recitation rooms, wood carving, modeling and pottery rooms and cloak rooms are also on the first floor. In the right hand wing quarters have been provided for the school committee and its executive officers, arranged with separate entrance, independent of the rest of the school.

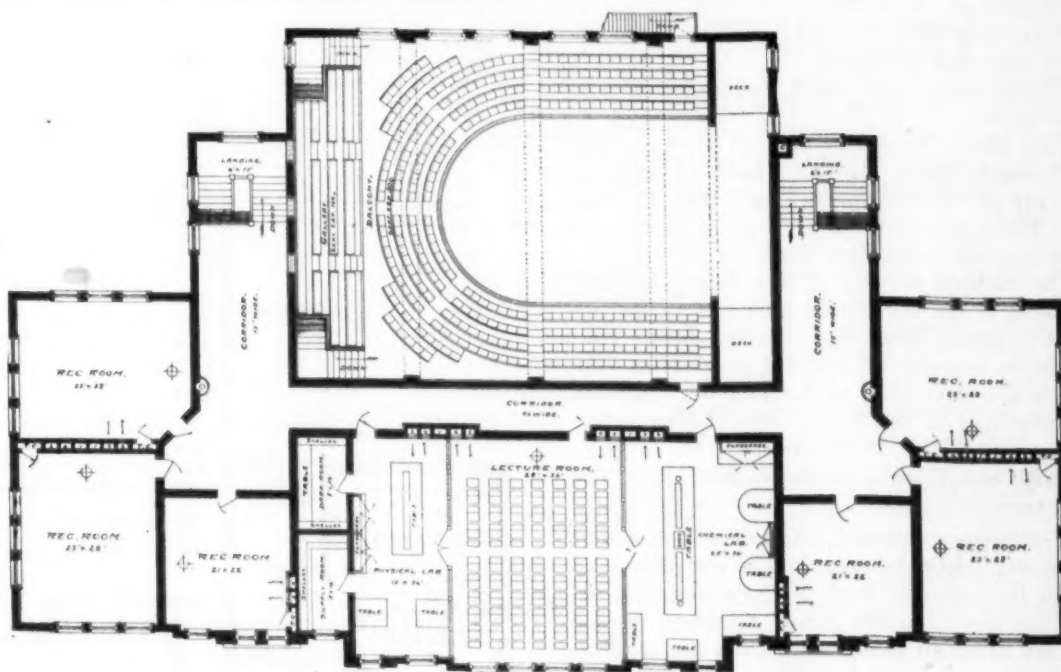
Four staircases lead to the upper floors. On

the second, there are four classrooms, quarters for the commercial department, the domestic science and the arts and crafts departments. In the middle section there is a student's library, rest rooms and coat rooms.

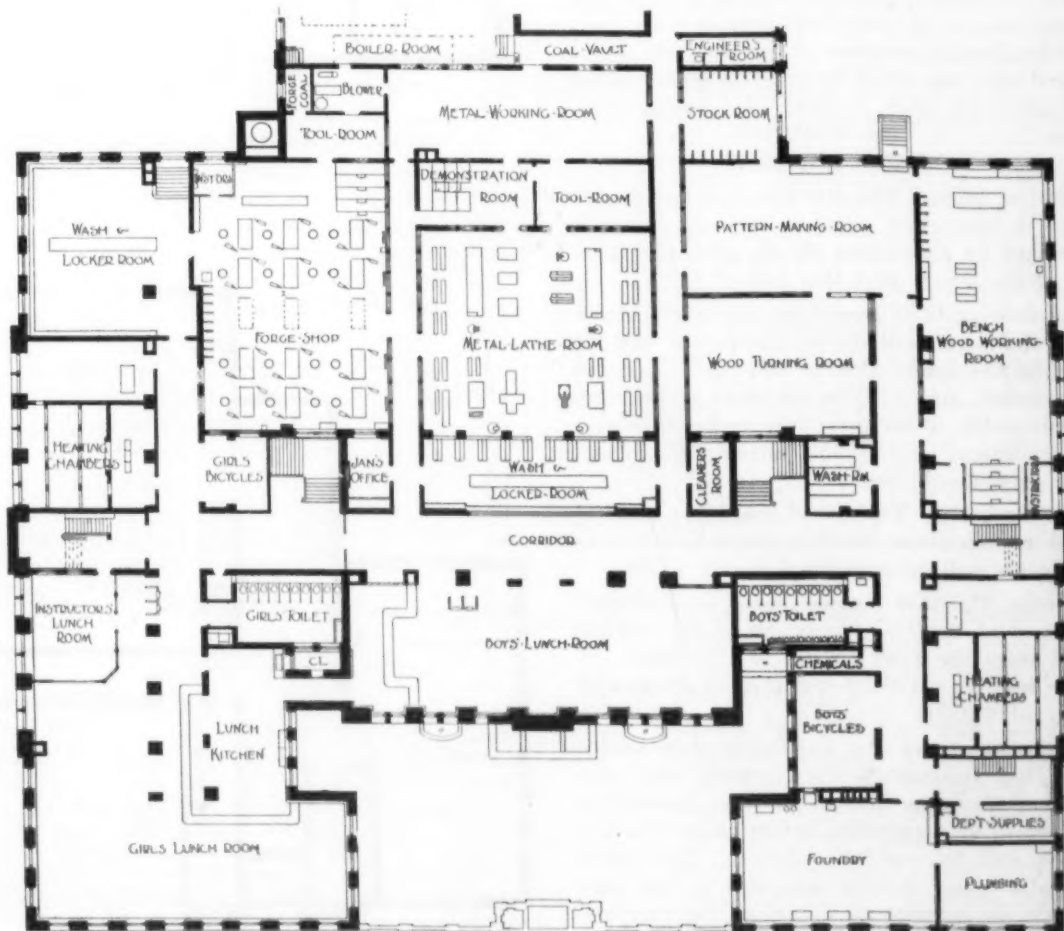
Laboratories take up the front portions of both wings of the third floor. There are also here four recitation rooms, a geography room and top-lighted drawing rooms. The space between the wings is occupied by a large lecture hall accommodating 400 persons.

The basement is occupied almost entirely by the shops. The arrangement is such that noisy occupations are carried on in the portions underneath the courts, practically outside the main walls of the building. There are also provided two large lunch rooms. The heating apparatus is located in an annex.

The total cost of the structure was \$400,000. It accommodates 1,200 students.



SECOND FLOOR PLAN, LOGAN COUNTY HIGH SCHOOL, STERLING, COLO.



PLAN OF BASEMENT, NEWTON TECHNICAL HIGH SCHOOL, NEWTON, MASS.

## SCHOOL HYGIENE.

Supt. Ella F. Young of the Chicago public schools has begun a crusade against habits injurious to the eyes. "Stickers" bearing the following warning will be attached to all text books used by the school children of Chicago:

Your eyes are worth more to you than any book.

Your safety and success in life depend on your eyes; therefore take care of them.

Always hold your head up when you read.

Hold your book fourteen inches from your face.

Be sure that the light is clear and good.

Never read in a bad light.

Never read with the sun shining directly on the book.

Never face the light when reading.

Let the light come behind or over your left shoulder.

Avoid books or papers printed indistinctly or in small type.

Rest your eyes by looking away from the book every few moments.

Cleanse your eyes night and morning with pure water.

This advice is needed everywhere.

Chicopee, Mass. Fifteen hundred cases of eye, ear and throat diseases have been discovered. Three hundred and fifty are so severe that they demand immediate attention.

The Medical Society of New Jersey will recommend to the legislature a change in the age limit of pupils from five to seven years. Half of the weaknesses of existing methods of education are attributed to the fact that children are admitted to the public schools long before they are physically and mentally able to grapple with complicated causes of study, etc. The report says:

"Testimony of active physicians shows that the normal child in our cities is not physically fit for the ordinary work of the schoolroom before the age of seven years. Children of five and six suffer in many ways from the confinement incident to study under ordinary school discipline and the growth of both body and brain is retarded while eye muscles are strained. Many cases of nervous breakdown in later years can be directly ascribed to the too early strain placed upon the child by entry to school before the mind or body is ready for school discipline."

## Medical Inspection.

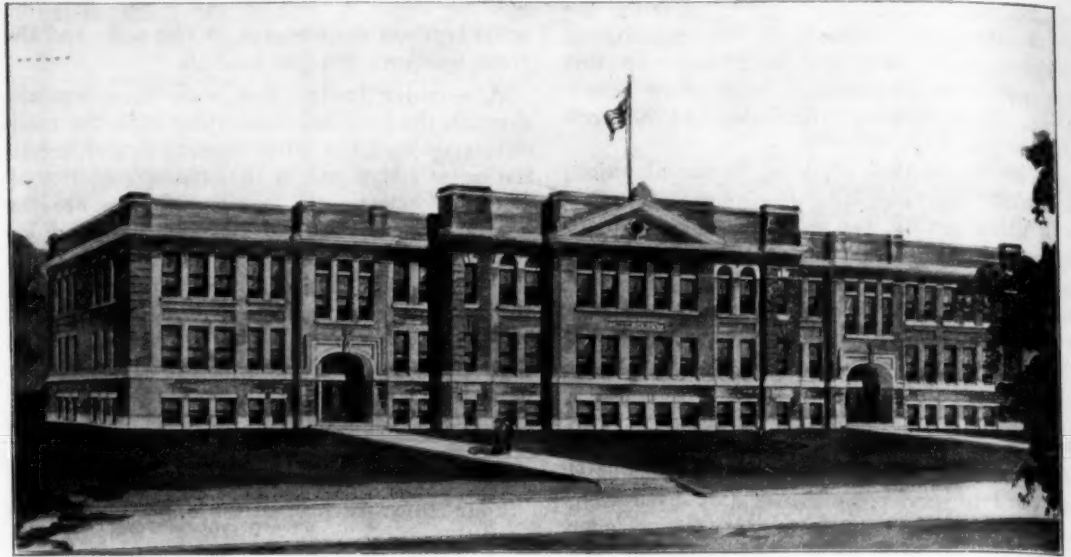
Boston, Mass. The city board of health proposes to have every child in the city carefully examined by physicians shortly after the opening of the school year this fall.

As each child is passed by the school physician, the latter will decide whether or not the child is physically able to take up his or her full studies, and will, in the cases of children found unable to do their full work, make recommendations as to the amount of school work they should do.

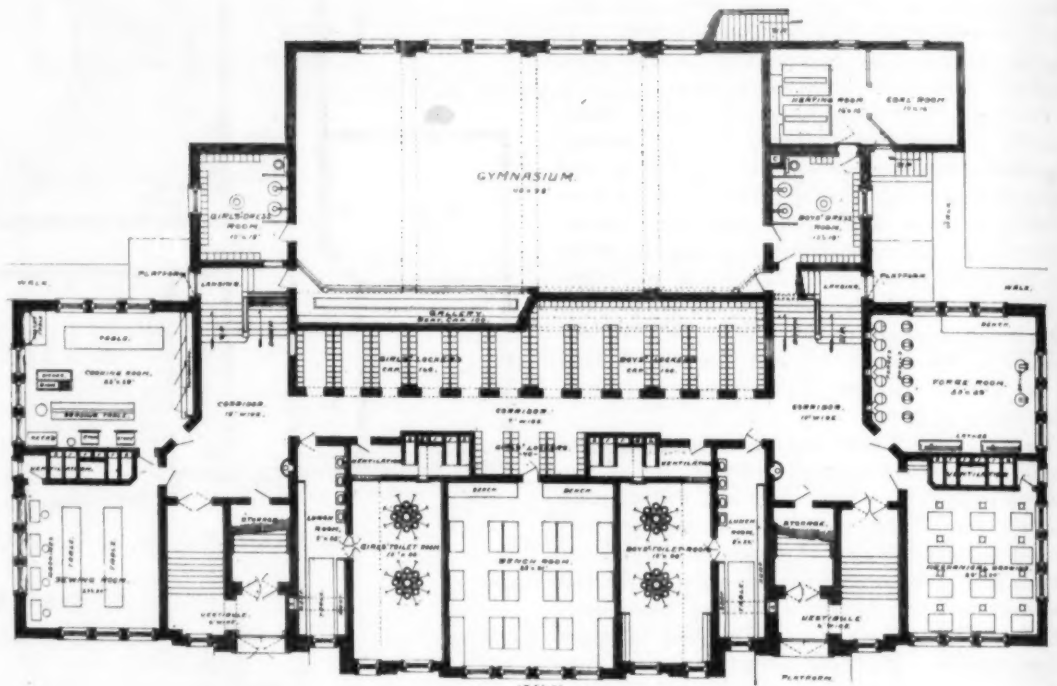
Portland, Me. The school board has recently voted to introduce medical inspection. Four physicians will be appointed.

Lorain, O. The school board has adopted a system of medical inspection of the schools based upon the plan in use in Cleveland. A single inspector will be employed at an annual salary of \$1,000.

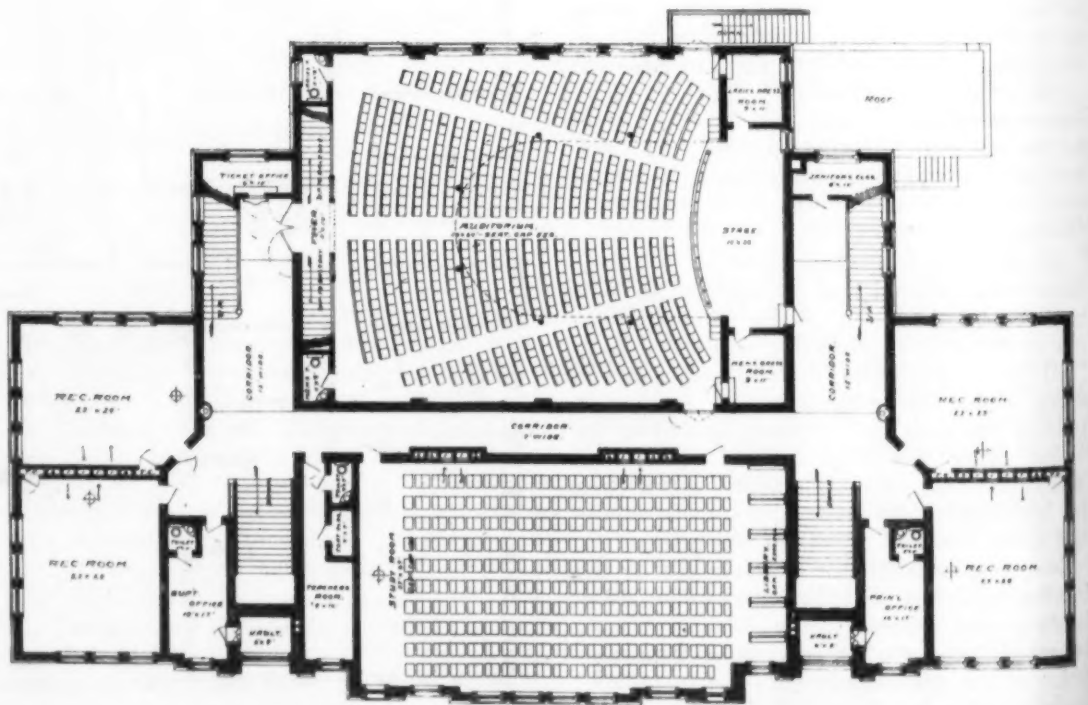
The secretary of the California state health board has recently notified county and city school authorities that the laws compelling children to be vaccinated before entry into the schools will be rigidly enforced. The board of health some months ago won a test suit defining the mandatory nature of the vaccination law and has determined to enforce all its provisions.



LOGAN COUNTY HIGH SCHOOL, STERLING, COLO.  
The Black Hills Company, Architects and Engineers, Deadwood, S. D.



BASEMENT PLAN, LOGAN COUNTY HIGH SCHOOL, STERLING, COLO.



FIRST FLOOR PLAN, LOGAN COUNTY HIGH SCHOOL, STERLING, COLO.

ELEMEN

With the school year in Boston has begun a new system of records. The use of the leaf record uniform the public for its size. The card have been M. Lampert, district, who on card problem of time.

In brief, described a (figures of Admission) tion card box by each admitted with the or transfer by the leaves school. It contains of the pupil he enters discharged his school attendance together valuable The se

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4. Residence	
5. School	
6. Teacher	
7. Parent	
8. Friend	
9. Other	
10. Address	
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# ELEMENTARY SCHOOL RECORD SYSTEM.

With the opening of the present school year the public schools of Boston have been provided with a new system of keeping pupils' records. The plan contemplates the use of three index cards and a loose leaf record as the foundation for uniform statistical reports in all the public schools. It merits study for its simplicity and completeness.

The cards and the method of use have been devised by Mr. Charles M. Lamprey, of the Brighton district, who as head of a committee on card records, has studied the problem of school records for some time.

In brief, the cards may be described as follows: Card No. 1 (figures one and two), is called the Admission, Discharge and Promotion card, and is kept in a filing box by each teacher for every pupil admitted to her class and is sent with the pupil when he is promoted or transferred. It may be retained by the principal when the pupil leaves school permanently.

It contains a cumulative record of the pupil's progress from the time he enters school until he is finally discharged, showing for each year his school, grade, room, weeks of attendance, conduct and scholarship, together with other necessary and valuable facts concerning him.

The second form (figure three)

Fig. 3. Attendance and Scholarship Record (Loose-leaf.)

Fig. 1. Admission, Discharge and Promotion Card.

Fig. 2. Reverse of Admission Card.

constitutes a record of attendance and scholarship and is kept in a loose leaf binder by each teacher for every individual pupil and is permanently filed at the end of every school year by the principal.

It contains the daily record of attendance and the monthly report of conduct and scholarship of the pupil for one year. Provision is made for summing up the records at the end of the year uniform with card No. 1 and card No. 3.

The third card (figures four and five), is kept in an index cabinet in

the principal's office for every child admitted to the school. When a pupil withdraws it is filed in a separate drawer labeled: Discharged Pupils. It duplicates the essential features of card No. 1 and provides additional information for the use of the principals and teachers.

From this card the principal is enabled to locate by grade and room a pupil attending any of the school buildings in the district, and to find out the chief facts of record concerning him without reference to the teacher. If more detailed information is required concerning the pupil it can be secured from the files of the attendance and scholarship record (No. 2). Information concerning pupils who have left school can be obtained in the same manner from the office record card or the attendance and scholarship record.

The fourth card is known as the Transfer card (figure 6), and is handed to the truant officer when a child is transferred to another school, public or private. It is used by the truant officer in tracing children and serves as a source of information to the principal, facts to

Fig. 4. Office Record Card.

Fig. 5. Reverse of Office Record.

be transcribed on the office record card of the school to which the child comes.

## The Idea of the System.

The whole plan is thus characterized by the committee of which Mr. Lamprey is head: "This system is intended to furnish more information than is now afforded concerning the pupil, to require less time in making the record, to greatly economize the time consumed in securing information for use, and to present a continuous, progressive record of the pupil's school life derived systematically from the daily record kept by the teacher and in complete harmony with it as to arrangement. Both the office record and the teachers' records are always alphabetically arranged, and can be checked up yearly for accuracy. A complete summary of the pupil's progress through school accompanies him whenever he is transferred, and his record in each school remains on file there after he leaves. The duplication of records is reduced to a minimum, and the arrangement of data on the cards is such as to facilitate the transfer of identical facts from one to the other.

"The whole scheme is elastic in its nature. It contemplates the use of blank cards for detailed records of individual cases, and additional forms for the study of physical growth, vocational tendencies, and other investigations that may be

deemed necessary. It is possible at once to locate a pupil by grade and room, from the office record, not only while he is a member of the school, but for any time during which he may have been a member. The office record is kept in two separate divisions, one containing the entire membership of the school at any given time, the other containing the cards of discharged pupils. These latter may be separated in turn, if desired, so as to have cards of pupils discharged during the year in one lot and those previously dis-



4. BOSTON PUBLIC SCHOOLS TRANSFER CARD									
1. Last name					2. First name and initial				
3. Name of parent or guardian					4. Occupation of parent or guardian				
5. Residence before discharge					6. New residence—or name of private or parochial school if pupil is transferred to one				
7. Date of discharge					8. Age when discharged				
9. Grade					10. School				
11. Teacher					12. Principal				
Remarks on other side									

charged in another. In the same way it is possible to keep separately the names of pupils graduating from the school, or the names of any other group or class of pupils as desired."

A complete set of instructions has been formulated for the use of the cards so that teachers can make no error in accounting for all facts concerning the children in their charge. These directions include a list of topics which may be investigated by the principal, specific instruction for the use of every blank space in each card and suggestions for reducing the work connected with the use of the cards during the year and after the close of the school season, to a minimum.

#### TEACHERS' SALARIES.

There are numerous things in the schools, remarks an Indiana editor, that might be better—numerous things that will be better some time, but all these will come up for consideration when the question of salaries is considered.

The teacher, for instance, is the only living, vital force in the schoolroom so far as the management is concerned. All the rest is matter, wood, iron, dead, lifeless stuff. It is this living force that acts upon the child for life more than all else. The effect of this is emphasized in the lower grades, which are first to be considered, for the lower grades constitute by far the most important part of our school system.

Here, in each room there are forty to sixty or more human beings to whom the teacher must stand for the time as substitute for both parents. Here impressions are made that last through the lives of these children. The teacher, to approach within a degree of the results that might be reached under favorable conditions, must be intelligent far beyond what is required of the average wage earner who receives a much larger salary.

To be successful—even if the teacher is only to do more good than harm—he must know something about human nature as manifested in child life. Theorize as one may about this, it requires study, and much study; study that must be given to the subject outside of the schoolroom as well as in it. Indeed, if the teacher who is required to care for the number of youngsters usually imposed upon her gives to this one subject the attention that it deserves there will be little time for anything else. There will be work for every moment—every moment outside of the schoolroom as well as in it.

It is necessary for the teacher to know much about conditions that can not be furnished by any set of rules or by any system provided by the board or by the superintendent. Here is a child, for instance, that seems dull. It is the eyesight, perhaps, for there are numerous instances of this sort; pupils seem dull when if fitted with a pair of spectacles their whole mental being seems to be changed. A very simple experiment would reveal this to any doubter, if he will only attempt to go about for an hour with a pair of spectacles that are not adapted to his eyes. And the child with defective eyesight is the victim of exactly this affliction.

And this is only one of numerous illustra-

tions that might be given. This and a thousand other things the teacher must know to be successful.

The attention to other laws of health; the attention required of the really successful teacher—this alone would require a general intelligence that it costs time and money to acquire; far more time and money than it requires to prepare the average man for a position in which he receives twice the wages.

And information in numerous other phases are absolutely necessary to the successful teacher—and all this to fit one to enter the schoolroom to take charge of these pupils.

The qualifications so far indicated are absolutely essential, and yet we have not reached the instructor. All these qualifications are required—not by the law, indeed; not by the rules or the system, but by the very conditions themselves to fit one to take charge of these children, even if no instruction were required.

Add to this the preparation necessary to impart knowledge successfully and you have a demand that, compared with the wages paid, suggests an absurdity unspeakable. This is true, however we may try to blind ourselves to it. We go about our business when we see the children on the way to the big buildings, and think of them as under shelter, and perhaps comfortable so far as temperature and ventilation are concerned—often a baseless assumption, by the way—and we assume that everything is going on as it should because we have become accustomed to it and have come to take it for granted without a moment's inquiry as to the actual condition of things.

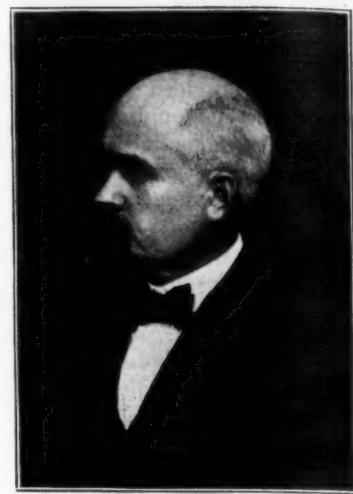
And we look at the big buildings of wood and stone and brick and iron, and complacently pat ourselves upon the back at the thought of our extraordinary beneficence toward the rising generation. The truth is we are careless, criminally careless; heedless to a degree that would disqualify a man for business in any pursuit. And here is this host of living, breathing human beings whose lives are being affected for life—affected for ill as well as good by this very system that we boast so much about.

Great good is done—yes, but great harm also through this very heedlessness; how much no one knows, but God knows there is enough of it.

Double the salaries, and the teachers now at work will be able to prepare themselves all the better, and the brighter ones may then consider teaching their life work. Double the salaries and we shall have better, brighter, more wholesome influences molding the lives of the little ones at a time when they need the most intelligent care that is within the possibilities of the human mind to bestow.

Sedalia, Mo. The school board has recently adopted a new schedule of salaries under which the teachers in the public schools have been classified as follows: Grade schools, from second grade to sixth grade, inclusive, maximum salary, \$55; first grade, seventh grade and eighth grade, maximum salary, \$60; high school, maximum salary, \$100. The teachers in the grade schools will be advanced yearly by an increase in salary of \$2.50 per month, until they have reached the maximum salary. Any teacher in the grade schools who attends a recognized summer school will, upon presentation of a certificate, be considered as having served a year and will be advanced in salary accordingly.

Davenport, Ia. With the opening of the schools a new salary schedule has gone into effect by which all of the grade teachers receive increases in salary averaging \$5 per month. The schedule provides that the initial pay in all elementary classes be \$450. This is increased to \$500 for the second year and \$550 in the third year. In the fourth year of service



HON. A. M. DEYOE

Republican nominee for the office of State Superintendent of Public Instruction of Iowa, Garner, Iowa.

the salary is raised according to the grade taught: Beginners' first grade, \$650; first to fifth grades, inclusive, \$600; sixth and seventh grades, \$650; eighth grade, \$700; ninth, \$750; advanced German, \$650.

Supt. Calvin N. Kendall, of Indianapolis, has recommended that the salaries of all teachers in the public schools under his supervision be increased. The estimated cost will be \$40,000 if it is carried into effect.

#### Industrial Education Convention.

The fourth annual convention of the National Society for the Promotion of Industrial Education will be held in Boston, November 17, 18 and 19. A feature of this gathering, which contains especial interest, is the expected presence of Dr. George Kerschensteiner, superintendent of schools, Munich, Bavaria. Dr. Kerschensteiner will spend four weeks in America during the fall as the guest of the National Society, and will visit the schools of Boston, Chicago, St. Louis, Cincinnati and New York, at the same time delivering addresses in each of the above named cities. The Friday evening session of the convention is to be taken up by Dr. Kerschensteiner's address on "Continuation Schools." Separate sessions will be devoted to the following topics: Part Time and Evening Schools, Apprentice and Corporation Schools, and The Broader Aspects of Industrial Education.

#### AMONG BOOKMEN.

Mr. R. J. Edwards, who represented D. Appleton & Company in the state of Indiana, has recently resigned to accept a position with the Advanced Stove Works, of Evansville, Ind. Mr. Edwards was succeeded on the first of August by Mr. Murray Parker, formerly with Little, Brown & Company.

Mr. L. R. Neal, representing the American Book Company in central New York state, has been promoted to the New Jersey field. He succeeds Mr. Isaac Van Houton and will make his headquarters at 24 S. 9th street, Newark, N. J.

Mr. B. F. Dame, for several years agent of Parker P. Simmons, has recently been made New England manager for the firm, with headquarters at 120 Boylston street, Boston. Mr. Dame will be assisted by J. S. Simmons, a recent graduate of Bowdoin college.

Mr. Hugh S. Weston, the Macmillan representative for Illinois, has withdrawn from the race for county superintendent of Peoria county. Mr. Weston was the leading candidate for the office, but personal interests compelled him to withdraw after he was practically assured of his election. Mr. Weston is the oldest man now in the service of the Macmillan Co., in the Chicago territory.



# FOR BUSY SUPERINTENDENTS.

The Schoolmasters' Club of Minneapolis has endorsed a movement by the Commercial Club of that city looking toward a reorganization of the public schools. The latter organization several months ago issued a statement urging that the schools be divided into three classes, elementary schools, grades 1 to 6; junior high schools, grades 7 to 9; high schools, grades 10 to 12. The Schoolmasters' Club has now recommended in addition to the above:

Promotion of junior high school students by subjects instead of grades.

A reduction of the number of students to thirty per teacher.

Concentration of junior high school students and the adoption of departmental teaching.

Enlargement of industrial work.

The employment of a special teacher in each school to assist retarded pupils.

The club finally recommends the formation of a joint commission to study the public school system.

Mr. Frank V. Thompson, headmaster of the high school of Commerce, has been elected assistant superintendent of the Boston public schools. He succeeds the late Robert E. Burke. In Chelsea, Adelbert L. Stafford has been made superintendent.

Baltimore, Md. Changes in the present method of supervision are being discussed. At present the city is divided into small units at the head of which are supervising officers, known as group principals.

Supt. Wm. H. Elson has recommended to the Cleveland, O., board of education a radical re-arrangement of the school terms by which the school are to be in session continuously during each year with quarterly terms. Mr. Elson suggests that three quarters be mandatory and one quarter be optional.

Discussing the plan Mr. Elson says: "This plan is a distinct recognition of the fact that the school exists for the child rather than the child for the school."

"Under this plan the schools would open on the first Monday in September and would close on the 31st of August. Each of the four terms would be twelve weeks in length and would be followed by a one week vacation, excepting the first term. The first vacation would be about Christmas time. The first term would close on the last of November; the second on the last of February; and the third on the last of May."

The National Society for the Promotion of Industrial Education has just issued a descriptive list of trade and industrial schools in the United States. The materials for this catalogue have been compiled by Edward H. Reisner, the secretary of the society. The contents fall into eight divisions, the most important of which are those on intermediate industrial schools, trade schools (day courses), technical schools (day courses), apprentice schools and evening schools giving technical and practical shop courses. The pamphlet was published as the result of a general demand for a tabulation of the main facts and features of the administration and curricula of the industrial and trade schools at present in operation in this country. As a majority of the existing intermediate industrial schools have been inaugurated within a period of two years, the facts relating to this section are of particular interest to those concerned with modern educational movements.

The sum of \$10,000 has recently been set aside by the Chicago board of education for the establishment of social centers in public school buildings. A committee of the board recently made an extended tour of the New England and Atlantic states for the purpose of studying methods of extended use of schoolhouses. An extensive scheme for broader utilization of the school halls, classrooms and school libraries has been formulated for the coming winter.

Bethlehem, Pa. The school board has recently appointed a principal to check up all school supplies, books and materials received from manufacturers and publishers, and to supervise their distribution. Difficulty has been experienced in keeping track of the annual supplies and the board has made the appointment of a principal to ensure careful checking.

Three open-air summer schools were conducted in the city of Chicago for a period of six weeks, ending August 18. Nearly 100 children, taken from homes where they were exposed to tuberculosis, were accommodated. The authorities reported that the children had benefitted in a marked degree and declared the schools a complete success.

Huntington, Ind. Pledges that they were not members of any fraternity or secret society and will not become members of any during the school year, will be required of all students who enter the high school. This was decided on at a recent meeting of the school board.

## School Cleaning Machinery

Any reputable physician, any competent bacteriologist—in short, any person who is properly informed—will tell you that tuberculosis, pneumonia, scarlet fever, diphtheria, grippe and influenza, all "colds," in fact, all the infectious diseases are caused more often through dust inhalation than in any other way.

School buildings are veritable dust factories. The amount of dust carried into them on the shoes and clothing of the large number of pupils, several times each day, furnishes the raw material. The hundreds of little feet, which act as a pestle acts in a mortar, grind this raw material into impalpable powder that is raised into the breathing zone of the rooms by every move that is made in the building.

A sample of dust amounting to one gram was taken from the sweepings in a public school building in Milwaukee, Wis., not long since, and was examined under the microscope by Dr. Rhuland, the city bacteriologist, who reported that he found over thirty-six millions of bacteria in this small quantity of dust.

Not all of these were "criminals," or disease-breeding germs, but a very large proportion of them were of the disease-breeding varieties.

### Dried Sputum in "Dust."

The dust of the schoolroom today is pregnant with the spit of yesterday.

That is because it is yesterday's dust—likewise yesterday's spit.

Moral: Do not have any yesterday's dust in the schoolroom today.

HELP YOUR JANITOR!—Remember, he is not to blame for present unhygienic conditions.

He could not heat your building satisfactorily by means of stoves—that method is antiquated.

He could not ventilate your buildings satisfactorily by means of windows—that method is antiquated.

He cannot sweep and dust your building satisfactorily with broom, brush and feather duster—that method is now antiquated.

There is an evolution in all of these things.

Costly heating plants pay—no one now questions that.

Costly ventilating plants pay—no one now questions that.

The least costly of all of these—the suction (vacuum) cleaning system—performs by far the greatest hygienic service.

No one who is informed now questions that. INFORM YOURSELF.

### Perfected Vacuum Cleaning System.

There is no other cleaning process known that will render a school building so utterly dustless as the vacuum cleaning, or suction sweeping process, by means of which all the dust in the building is collected, while the sweeping is being performed, and is instantly conveyed to an air-tight receptacle in the basement of the building, whence it is removed to the furnace to be burned.

This company manufactures the only perfected special school cleaning systems, protected by eighty-five patents. These systems are made in more than eighty-five different sizes, suitable for buildings of all kinds, shapes and dimensions.

We maintain a special school correspondence department, and invite correspondence from school authorities who are interested in this great sanitary measure.

Our engineering department is at your command for assisting you or your architects in solving vacuum cleaning problems. We are very glad to answer questions from interested parties, and to supply literature explaining our various systems.

Our products are sold to the plumbing, steamfitting and electrical supply trades, thus placing the responsibility for correct piping and proper installation right in your own city, and the guarantee of this company is back of all its products.

Send for literature, at the same time giving us the size of your school building on the ground, number of floors, and advising whether you have electric power, or high pressure steam of 60 pounds and upwards.

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One at Racine, Wis.—One at Chicago, Ill.



## THE STANDARDIZATION OF SCHOOL STATISTICS.

(Concluded from Page 4)

Administrative cost comprises the compensation of all officers and employees engaged in the control of the school system but not attached to any particular school activity. To this should be added the incidental expense of school control, such as printing, supplies, etc., of the administration itself.

The expense of administration may be classified as follows:

1. Educational administration or professional control, such as salaries of superintendents, examiners, et al., and their expenses.

2. Physical administration, covering the salaries of officers, clerks and other employees and their expenses.

Administrative expenses are not distributable in a practical sense, and are comparable only as to volume. Even this method of comparison may not be quite as illuminating as might be wished for, because methods of control of school systems are widely divergent, which would seem to indicate, when preparing statistical reports, the desirability of adapting some form of statistical statement other than figures of cost, which will indicate the salient features of organization and control.

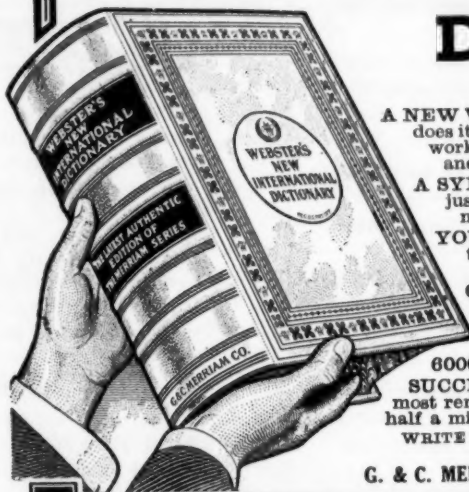
It has been stated before, in other words, that a school report would be incomplete if confined to just one of the component parts, which, when combined, form a perfect school organization, viz., the educational, the fiscal and the physical. A statement showing the cost of a school plant would fall short of its true purpose if there failed to be shown in connection therewith, what the plant consisted of. A school building costing \$200,000 or \$300,000 would appeal to the citizen on the ground that it represented a large investment and it may even occur to him that it is too large in the absence of information as to its size, location, construction, appurtenances, equipment and the various features which are to be found in our best and most modern edifices. It seems proper then to furnish the whole story, and place in close connection, or even in parallel with the cost, such physical facts as are important and serve to justify and explain the object and nature of the expenditure. The same principle applies in connection with the maintenance and operation of school plants. If the various educational uses of a building are shown in combination with the figures of attendance of each activity, the reason for increased or enlarged expense under either or both heads becomes comprehensive.

Dr. Brown, the U. S. Commissioner of Education, has already won the enthusiastic support of the principal school accounting officers in the country, and if he can secure your interest and valuable assistance in the great work of revision and standardization of school statistics, the success of the proposition is assured. He deserves our united support.

The association which I have the honor to represent is desirous of your co-operation and sympathy in this movement, and suggestions and ideas from you along constructive lines would be appreciated. Much is heard on the subject of "uniformity" until that word has become abused. Practical school people know that uniformity in educational matters is impractical and if, in a sense, such condition were possible, it would be inexpedient and unnecessary. However, we can, with propriety, agree on standard methods of accomplishing some things which will be to our mutual interests and help, and, after having so agreed, friendly competition as to how best to perform our respective tasks may prove of some value in the cause of public education.

(Address before Department of School Administration, N. E. A., Boston, Mass., July 6, 1910.)

## A NECESSITY TO EFFECTIVE SCHOOL WORK WEBSTER'S NEW INTERNATIONAL DICTIONARY



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G. & C. MERRIAM CO., PUBLISHERS, SPRINGFIELD, MASS.

## RULES AND REGULATIONS.

### Handling Complaints.

The school board of Youngstown, Ohio, several months ago adopted a rule for the treatment of complaints made by school patrons. It reads:

Pupils, parents or guardians will not be permitted to embarrass teachers by stating any grievance which they may have in the school-room or in the presence of the pupils. Persons violating this rule will render themselves liable to prosecution by the board.

Teachers shall not give notices in schools of shows, lectures, exhibitions or religious or political meetings, nor sell tickets for the same, nor permit any portion of their time to be occupied by book agents, lecturers, photographers, or exhibition men; nor allow a subscription or contribution to be solicited or taken up in any school for any purpose; nor receive a present from pupils while engaged in teaching.

### Newsboys' Licenses.

The Holyoke, Mass., school committee has recently passed rules for licensing newsboys. The rules read:

No person under 14 years of age shall, in any street or public place of the city of Holyoke, sell or expose for sale any newspapers, pamphlets or books, unless he has a license therefor granted to him by the school committee of Holyoke. No girl under 14 years of age shall be granted such license.

Applications for licenses must be made at office of the school department, and the minor applying for such license must be accompanied by parent, guardian or custodian.

Every minor under 14 years of age so licensed shall attend some public day school, or some other school approved by the school committee, during the entire time such schools are in session.

Every such minor will be required to file with his application for license a statement signed by the principal of the school attended by such minor, certifying to the fact that he is regularly attending such school.

Every person so licensed shall, at all times while engaged in the business for which thus licensed, wear in sight a badge of such form as shall be approved by the school committee. No person not so licensed shall wear such badge.

Persons so licensed shall not congregate together, make any unnecessary noise, cry their newspapers in a loud voice or any other way disturb or annoy persons as they pass, or in any manner disturb the public peace and comfort; and they shall not cry out their newspapers on Sunday.

Every person licensed under these rules shall exhibit his license to any truant or police officer of the city when so required. Such license shall not be transferred, exchanged, borrowed or lent, except in case of sickness, nor shall any licensed person employ, or furnish with papers to sell, any unlicensed person.

Any violation of the laws of the state, or of any provision of any ordinance, or of any of these rules of the school committee, may operate as a forfeiture of the license.

Principals of schools attended by minors to whom such licenses have been granted shall inform the superintendent of schools promptly when the school attendance of such minors becomes irregular.

The school committee may at any time, and for any cause which they may deem sufficient, revoke any license granted under these rules.

A license expires when its holder reaches his 14th birthday.

Any person under 14 years of age violating any of these regulations shall be liable to a fine not exceeding \$10 for each offense.

Grand Rapids, Mich. Teachers in the schools are prohibited, under a new rule of the board of education, from tutoring or giving private lessons for pay to any pupils in their classes. Supervisors of special branches are likewise forbidden to instruct teachers under their direction.

Portland, Ore. The school board recently determined to stop the pay of teachers who leave before the close of the school year.

Oakland, Cal. The school board has, upon recommendation of its high school committee, voted to make like courses of study in the various high schools alike in all particulars. Thus a two years' course in commercial work in high school A must correspond in every detail with the two years' course in commercial work in school B.

Studies in the same courses in the different high schools must be taken at the same period in the school life of the pupil.



Some



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#### AMONG BOARDS OF EDUCATION.

A movement for purchasing coal for the schools of Minneapolis upon the basis of its heating power has recently been rejected by the board of education. Instead, the contracts have been apportioned among the dealers according to their assessed valuation as shown in the tax records. The president and one member of the board favored the acceptance of bids upon tests of the coal based upon the British thermal unit.

The school board at Flint, Mich., recently leased the site for a new school building for a novel consideration. The owner of the land, Mr. Neil J. Berston, offered a ninety-nine year rental for a clover blossom to be paid annually. The only proviso in the lease is that the property revert to the original owner or his heirs should the site be used for other than school purposes.

Moline, Ill. The school board has determined to sell at cost to the pupils of the schools all text books used by them.

The Des Moines, Iowa, school board is planning to discontinue all fire insurance on its fifty odd school buildings. According to figures compiled by Mr. A. L. Clinite, secretary of the board, the schools have lost but \$2,000 from fire during the past fifteen years. During that period about \$50,000 has been paid out in insurance premiums.

In recent years practically every school building has been remodeled and improved in such a manner as to greatly decrease the fire risk. From the very nature of the uses of the buildings the danger of fire loss is considerably less than in almost any other sort of structure, and since all the buildings are of modern construction the risk is reduced to a minimum.

For several years there has been no rerating

of the Des Moines schools on a fire insurance loss basis. During the summer the school board sought a rerating from the state inspection bureau because of the alterations of recent years which have so greatly decreased the risk of loss. This has not yet been made and as a result the school board is planning to discontinue carrying insurance on the school houses of the city.

Milton, Pa. A new high school will be erected after a popular vote had twice rejected the proposition. After the second vote against the new high school, two members of the board of education subscribed \$1,000 each, and after canvassing seventy other citizens and corporations obtained \$4,000. These gentlemen then bought and paid for a site and presented it to the town, which made way for the new high school. The public spirit of the citizens of Milton, Pa., especially of the board of education, is to be commended very highly.

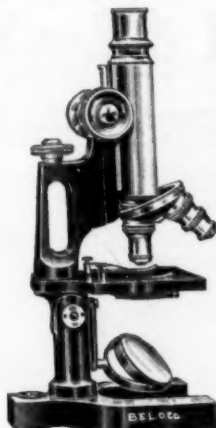
Houston, Tex. The school board has recently taken action to exclude from the schools all children whose parents or guardians are not bona fide residents of the city school district. Tuition will be charged all outside children, and such, also, as reside in the city with relatives.

The new Connecticut School of Trades, at Bridgeport, has opened with courses in carpentry and machine work. An evening course will be opened in the winter. Further trade courses are in preparation for both girls and boys to begin in the fall.

The common school revenue of the state of Indiana, which will be available for the use of the schools during the coming year, amounts to \$6,120,197.82.

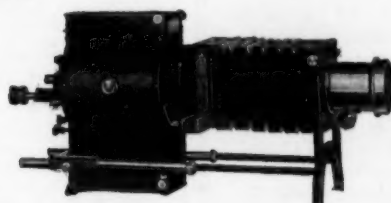
A pension system has been started in the

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is the standard for students' use. Equipped with highest grade objectives and eyepieces.



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public schools of Toledo by action of the board of education. As projected, the plan contemplates that the board will pay each year into the fund one per cent of the gross receipts raised by taxation. This will start the fund with an initial payment of \$10,000. The state law requires the board to pay over all deductions from teachers' salaries on account of absence or tardiness.

Every teacher subscribing to the fund shall have \$2 deducted from her salary monthly until the amount so deducted aggregates \$600. Any subscriber may be retired upon pension after thirty years of service, or be retired by the board after twenty years for physical disability, provided that three-fifths of the service shall have been rendered in the school district paying the pension. Upon the death, resignation or discharge of the teacher, ninety per cent of the amount paid in may be rebated. Should the full \$600 not be paid in before retirement a proportionate reduction will be made in the pension.

The pension fund will be administered by a board of five trustees, two of whom will be appointed by the board of education and three by the subscribing teachers. The pension fund may be invested in state, municipal or school bonds of the state of Ohio. No portion of the pension fund shall be liable to a writ or legal process.

The custodian of the fund will be the school treasurer, who shall be required to give bond.

A pension law for teachers in the public schools of New Orleans has recently gone into effect. The board of education has already appointed three of its members to serve on a commission which will act as trustee for the fund which is to be created.



## MODERN SCHOOLHOUSES.

City and Suburban. Cloth, quarto, 68 pages text, 148 pages of plates. Price, \$7.50, delivered. The Swetland Publishing Company, New York City.

There has been, for a decade past, a strong demand among architects and school authorities for collections of floor plans and photographs of the best in American school architecture. And, while this want has been met in ways other than in book form, the latter has always been sought as the most practical and serviceable. The Swetland Publishing Company has appreciated this and has met the demand by producing "Modern Schoolhouses."

This book, nine by twelve inches in size, beautifully printed in sepia and bound in rich blue buckram, is divided into two parts.

The first section is devoted to a series of authoritative chapters covering every phase of the planning, construction, heating, ventilation and sanitation of modern schools. The authors are such men of national reputation as Mr. C. B. J. Snyder, architect for the New York board of education; A. D. F. Hamlin, professor of architecture at Columbia University; Frank Irving Cooper, architect; Frank G. McCann, chief of the bureau of heating and ventilation of the New York board of education; Wm. B. Ittner, lately architect for the St. Louis board of education; Geo. H. Pleins, sanitary engineer; Charles F. Eveleth, heating engineer of the Boston Schoolhouse Department, and others.

The second part of the book consists of 148 pages of illustrations of recently constructed buildings, both small and large. Here the editors have shown the most discriminating care in selecting buildings which are not only splendid specimens of architectural style, but also notable achievements in arrangement from the school point of view.

The two parts of the book hang together well. The text forms a most intelligent discussion of principles and practice which the reader will find exemplified in the plates.

The schools shown in the book illustrate very well the tendency of the best architects to make our schoolhouses not so much ornate and elaborate in design, but refined in detail, correct in proportion and style, and above all sanitary.

Of the work of individual architects, the schools of Mr. Snyder in New York, Mr. Ittner in St. Louis, Kilham and Hopkins in New England, Mr. Haralson Bleckley in Atlanta, will commend themselves as the most noteworthy examples of consistent design for the localities in which they have been erected.

This book deserves a prominent place in the office of every school superintendent and architect.

A. C. McClurg & Company, Chicago, who have developed a general publishing business during the past few years to a large extent, recently entered the educational field. They have just issued two books in English, "Elementary Lessons in English" and "Advanced Lessons in English," written by Prof. George C. Howland of the University of Chicago. To take charge of this branch of their business, they have engaged Mr. C. E. Ricketts, for many years connected with one of the large school book houses.

Lawrence, Mass. The Palmer method of teaching writing has been introduced in the public schools.

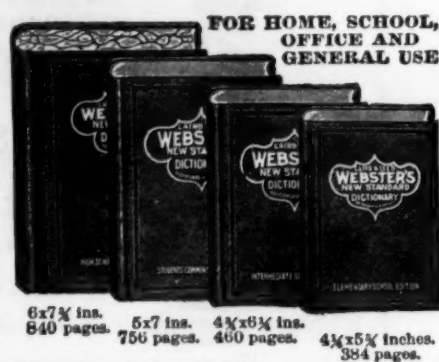
Melrose, Mass. The Bailey-Manly speller (Houghton Mifflin) and the Gulick hygiene series (Ginn) have been introduced.

Washington cities in which Ritchie's texts have recently been adopted include: Seattle, Newport, South Bend, Puyallup, Olympia and Rosalia.

Ginn & Company announce a new edition of Stevenson's Treasure Island, to be edited by F. W. C. Hersey of Harvard University. It will be especially suited to use as a classic for school reading, but will be welcome also to those who desire a substantial but inexpensive edition of this work.

Course in Isaac Pitman Shorthand has been introduced into the high schools of Grand Rapids, Mich., and White Plains, N. Y.

## Laird &amp; Lee's Educational Books FOR SCHOOLS AND GENERAL USE



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For sale by all booksellers and school supply houses, or sent postpaid by LAIRD & LEE, Publishers, CHICAGO, U. S. A.

racine, Wis. Adopted Slaughter and Lennes' algebra (Allyn & Bacon).

The Laurel primer, published by the Laurel Book Company, Des Moines, has recently been adopted in the following Minnesota cities: Hibbing, Virginia, Crystal Falls, Grand Rapids and Ely. It has also been introduced in Oshkosh, Wis., and Mohawk, Mich.

Barnes' Typewriting Instructor and Barnes' Shorthand for high schools have just been adopted by the graded high schools, Union, S. C.

Arlington, Mass. The school committee has just placed an introductory order for forty copies of Barnes' Brief Course in Graham Shorthand.

New Orleans, La. New Education reader, book two, has been adopted to replace Wheeler's second reader.

Monmouth, Ill. Upon recommendation of the superintendent the board has adopted Cheney's Short History of England (Ginn), Hawkes' algebra (Ginn); James & Jenks' Bellum Helveticum (Scott-Foresman), Smith and Laing's First Latin Lessons (Allyn & Bacon), and Applied Arts Drawing Books (Atkinson).

Lansing, Mich. Gulick's hygiene series adopted. Zanesville, O. Revised Mother Tongue language and grammar adopted.

McPherson and Henderson's chemistry was adopted for the following cities: Pittsburg and Allegheny, Pa.; Chicago, Ill.; Zanesville, Findlay and Chillicothe, O.; Menominee, Mich.; university high school, Chicago.

Long's English Literature was adopted at Minneapolis, Minn.; Providence, R. I.; Brooklyn, N. Y.; Lincoln, Neb.; Lafayette, Terre Haute and Elkhart, Ind.; and for state wide use in Virginia.

Increased sales are reported by Laird & Lee, publishers, Chicago, of their popular series of Webster's New Standard Dictionary. The books have appealed to school men throughout the country and are coming into general use in all parts of the country. Several of the largest cities of the country have adopted the book for use throughout the school system with marked success.

The books which have proven most popular are high school and collegiate edition, student's common school edition, intermediate school edition and the elementary school edition. They are replete with illustrations; the words are accurately defined and the encyclopedic features in each are most valuable. The series brings the dictionaries not only within the reach of teachers, superintendents and school boards, but also within reach of every pupil and home in the United States.

The following high schools have recently adopted Smith's Practical Course in Touch Typewriting:

Grand Rapids, Mich.; Mamaroneck, New York; Atlantic City, N. J.; Attleboro, Mass.; Chester, Pa.; Englewood, N. J.; St. Johnsville, N. Y.; Lincoln, Neb., and Fall River, Mass.

Owing to the increase in the New England business of Parker P. Simmons, the house has opened an office in Boston.

Massillon, O. Adopted the Zaner system of arm movement writing (Zaner & Blosier).

Fargo, N. D. Adopted Hunt's speller and Adams' physics.

Rock Island, Ill. Adopted Seegmiller's Applied Arts Drawing Books (Atkinson).

Ann Arbor, Mich. The school board has recently adopted Berry's writing books, published by B. D. Berry & Co., Chicago.

Barnes' brief course in shorthand will be used in the high school at Cheyenne, Wyo., beginning September, 1910.

Barnes' brief course in Benn Pitman shorthand has just been introduced into the public schools of Bergenfield, N. J.

Houghton Mifflin Company have recently published three catalogues of interest to school authorities. The largest is a complete descriptive catalogue of all the books published by the firm for class use in schools, books for school libraries and professional books for teachers.

The second book consists of college and university publications and general books which have been found useful for reference in connection with college courses.

The third catalogue includes only the 223 volumes constituting the Riverside Literature Series.

Houghton Mifflin Company are the publishers of the writings of such famous American authors as: Emerson, Hawthorne, Longfellow, Whittier, Holmes, Thoreau, Lowell and Aldrich. Special editions of each of these authors for school use are listed in the general educational and college catalogues.

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### BOOK REVIEWS.

#### The Nature-Study Idea.

By L. H. Bailey. Price, \$1.25 net. 246 pages. The Macmillan Company, New York, Chicago.

Those unfamiliar with current questions in educational thought may find this title slightly puzzling. The author must have felt some explanation not undesirable, since he tells us in his introduction that nature study is an attitude of the mind, concerning itself with the child's outlook on the work and that its aim is to enable every person to lead a richer life. The book is a collection of notes and essays, written at intervals for specific occasions. One and all have some bearing on this issue—that nature study is one thing and science-teaching for science's sake is quite another thing. The second chapter is historical, showing how this movement has gained ground until it has gained a definite name. Illuminating points are made in explaining the meaning of this movement. Inquirers may learn it is not formal science teaching; it is not reading from nature books; it is not the teaching of facts merely for the sake of facts; it is not—be grateful, over crowded teachers!—another study to be added to the existing curriculum. It is so handling facts—preferably in related groups—of the child's surroundings that the sights, sounds, sense of his environment, shall be better known, that these common and familiar affairs shall seem worth the while. To those who understand nature speaks a varied language. In connection with school gardens a test-ground or problem-garden is suggested where new varieties may be tried, where fertilizer and spraying experiments may be conducted. This will cultivate the thought that there are many possibilities still hidden in the soil. An aquarium for things that live in the water, a vivarium for those that live on land, are said to be two necessary pieces of apparatus for school rooms. These supplement outdoor life.

Nearly one third of this book is given up to answering the uncertainties and difficulties of inquiring teachers. They wish to know how to begin, what subjects should be chosen, whether continuity of topics is to be disregarded, how sufficient knowledge may be obtained, what shall be done with the children in the summer vacation, how nature study work may be correlated with other work, how in a rural neighborhood the

farmers may be reached. The questions show how formal much schoolroom work has become, how many teachers have lost the power of initiative. Something is wrong in a system which tends to make its working force operatives. The answers are full of information, temperate in tone, fertile in suggestion, and characterized by good judgment.

The book, from beginning to end, pleads for a training that shall bring the young greater sympathy with the natural world in which they live.

#### Washington, Webster and Lincoln.

By Joseph Villiere Denney, Ohio State University. 148 pages. Scott, Foresman & Company, Chicago.

The farewell address of Washington and the inaugural address of Lincoln are state documents. The addresses of Webster are examples of noble oratory on noble themes. These with some letters by Lincoln and an appreciation of Lincoln, taken from *The Spectator*, form a group of exceptional dignity and worth.

The notes of the editor are mainly concerned in refreshing or creating an historical background. Still, place has been given to definite historical references. In the introduction the editor offers an able exposition of the logical divisions of a possible address. Marked mention is made of the importance of the oral quality in great addresses.

#### The American Rural School.

By Harold W. Foght. Cloth, octavo, illustrated. Price, \$1.25. The Macmillan Co., New York, Chicago.

Probably no American educator has probed into the needs and problems of our country schools as has the author of this book. His account of existing conditions both from an educational and social viewpoint is as exhaustive as it is accurate and his remedies will appeal as sensible and immediately possible. And while the volume is addressed to teachers and superintendents, it should appeal especially to school board members and thinking people generally.

The low standards of mental instruction, the bad sanitary conditions of the rural schoolhouse, are dwelt upon at length.

The poor quality of professional ability, which is the direct result of the niggardly salaries paid to the average teacher, is shown in striking

contrast to the standards of salaries of European teachers. There are interesting chapters on the advantages of nature study, landscape gardening, etc., as the surest means of interesting the country boy and girl in their environment and thereby making them content to cultivate the ground or find their life-work on their native heath, thus diverting the stream from the already overcrowded cities.

#### The Teacher's Philosophy In and Out of School.

By Wm. Dewitt Hyde, president of Bowdoin College. 83 pages. Price, \$0.35. Houghton Mifflin Co., Boston.

Although we believed the general thesis of this work to be faulty, because it implies that authority or right to rule is by sympathetic and effective service of the common interests and needs, rather than admitting that primarily all authority is from God, yet for teachers who aim at efficiency, there may be many things in these pages that will prove beneficial and make for greater excellence.

Education, in later years, may have become more self conscious; child study and educational psychology may be an advance in methods and practice, but lawful and rightful authority can never be properly supplanted by mere service, however sympathetic it may be. The modern day trend among pupils is denial of authority. That which is inculcated in high school, college or university by theory will find fruition in later life in open disregard of authority both of God and man. Is it not time to consider seriously whither we are drifting?

#### The Blodgett Fifth Reader.

By Frances E. Blodgett and Andrew B. Blodgett, Syracuse, N. Y. 481 pages. Price, 75 cents. Ginn & Co., Boston.

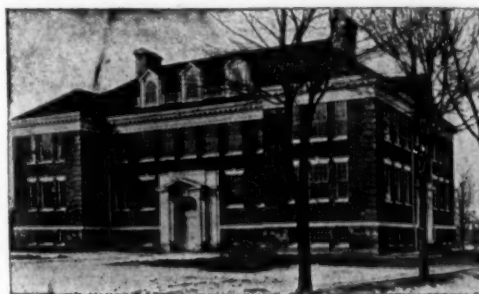
We are under the impression that the Blodgetts have succeeded in the Fifth Reader in their aim to appeal to the interest of the pupils. Of course there are readers innumerable on the market, yet we think that this number of this series will be welcomed. In it there are many fine selections and much that is quite modern and up to date. The world progresses and we do not think that a child should be made acquainted with literary productions and their producers of the past only. The value of the book is enhanced by specimens of our most recent writers.

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### Children's Garden for Pleasure, Health and Education.

By Henry G. Parsons. Cloth, 12mo, price, \$1, net. Sturgis & Walton, New York.

Legislatures are passing laws requiring the teaching of elementary agriculture, to the confusion and consternation of the teachers, who are appalled by the vastness of the subject, their lack of preparation and the apparent difficulty of fitting the new course into the curriculum for children. This little work on children's gardens will go far to remove some of the difficulties that beset the path of the earnest teacher. A children's garden can be made a laboratory in which to teach how wealth, health, courage and happiness may be gained. It may be made "play" and at the same time inculcate the dignity and honor of manual labor. This work is full of technical instruction imparted in an untechnical way, and is made very interesting by a number of fine illustrations from photographs.

### American History Leaflets.

Edited by Albert B. Hart and Edward Channing, Harvard University. 31 pages. Price, 10 cents. Parker P. Simmons, New York.

Number 34, of the American History Leaflets, deals with extracts from official papers relating to the Isthmian Canal, 1515-1909. From Balboa's Discovery to the Official Review of Five Years of Progress on the Canal, 1909—is a long call. The pamphlet contains valuable historical excerpts relative to the isthmus, treaties, contracts, etc., which make valuable reading and form a fund of information in a nutshell. The work impresses us with its extreme value for the purpose of collegiate or public debates, containing, as it does, much solid information, such as is expected to be forthcoming on such occasions.

### An Outline of English History.

By Norman MacLaren Trenholme, University of Missouri. 12mo, cloth, 122 pages. List price, fifty cents. Ginn & Co., Boston.

This is not a history, but as stated in the title, an Outline of English History. It will be a joy to teachers and professors who have to make out examination papers on this subject. The questions in this compendium refer to Cheney's Short History of England. No one could use for study or teaching the outline without an acquaintance with the text, but as an outline or a series of selected topics, and review questions, the work is admirable.

### Men in Many Lands.

An introduction to the study of Geographic Control. By L. W. Lyde, University College, London. 183 pages, illustrated. Price, \$.65, net. The Macmillan Co., New York, Chicago.

Mr. L. W. Lyde has been an examiner in geography for various examining boards, and to him has come a string of questions from all parts of the world on what may be called "odd points" in geography. In answer to some of these questions, he has put into consecutive form a series of answers, with the result that he has produced a book that is unique, splendidly inter-

esting, cheap, and illustrated in colors that are a joy to the eye on account of judicious selection. The book could be used profitably for supplementary reading in geography, or it would be a valuable single addition to a library.

### Field Zoology.

Insects and their near relatives, and birds. By Lottie E. Crary, Kansas State Normal College. 364 pages, 117 illustrations. Blakiston's Sons & Co., Philadelphia.

Now that such a vigorous campaign is being waged against the ordinary house-fly, which is a recognized spreader of disease germs, it is well to know something about other insects and their near relatives, and birds. This book is intended primarily for students who have little previous knowledge of insects or animals of any sort. The author, Miss Lottie E. Crary, well says that "life is one of the most interesting of facts of creation, if not the most interesting," and "life is a continuous fact, of common powers but various in expression, whether one proceeds from the simple to the complex, from the early to the late, or from the low to the high." There are 117 illustrations, and although the text is necessarily somewhat technical, yet an effort has been made to be as simple as possible in style as an aid to beginners.

### The Building and Care of the Body.

By Columbus N. Millard, supervisor grammar grades of public schools, Buffalo, N. Y. 227 pages, price, 40 cents, net. The Macmillan Company, New York and Chicago.

Readers of "The Wonderful House that Jack Has" will welcome another book by the same author. Like its predecessor, its style is clear and attractive, its statements are strictly scientific and up-to-date, while its pages are packed with practical suggestions and non-essentials have been carefully excluded. In each chapter emphasis is placed upon the points vital to health. In connection also with each chapter are given a list of points worthy of special study and a list of questions requiring specific answers. In more than one line of thought and living the old Greeks had advanced ideas. Their system of education never forgot the needs of the body and they produced a fine race of men, physically and mentally. We moderns are beginning to realize that it is a fine thing "to be able to be one's best, to do one's best, and to look one's best, as much of the time as possible."

### What To Do At Recess.

By George E. Johnson, superintendent of parks and playgrounds, Pittsburg, Pa. 12mo. Cloth. 33 pages. Illustrated. Price, 25 cents. Ginn & Company, New York, Chicago, Boston.

This helpful book is but one result of work that has been done by the superintendent of parks and playgrounds in smoky, industrial Pittsburg. The teacher is told just how to begin in arranging for games and plays at recess, and beginnings we know are proverbially difficult. Then follow directions for games possible in a small space, fit for the needs of the primary, the intermediate,

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the grammar school grades, both boys and girls. Space, time, and means for playing are the right of children. It would seem that latterly they've not always been getting their just dues. "What To Do At Recess" will help to develop what the wisest ancients called "Mens sana in corpore sano."

### Plumbing Plans and Specifications.

By J. J. Cosgrove. Cloth, octavo, 275 pages.

### Principles and Practice of Plumbing.

By J. J. Cosgrove. Cloth, octavo, 278 pages. Published by the Standard Sanitary Mfg. Co., Pittsburg, Pa.

These two volumes form together a complete exposition of the theory and practice of modern sanitary engineering. The first volume was published several years ago and was at that time the best formal presentation of the exact principles which underlie the practice of plumbing. The author had collected rules and formulas, which have since become standard, and brought to this important branch of sanitation, scientific exactness on topics, information concerning which had previously only evidenced itself in empirical methods. The book treated of the general principles of water supply and waste disposal and not only described the best types of pipes, fittings, fixtures, etc., but included all of the mathematical formulas and tables of standards, weights and measures, which are now generally accepted.

The second book, which has just been issued, gives complete directions for planning the plumbing in a wide variety of buildings most commonly met with. The first section explains a very simple method of indicating plumbing on building plans. It is presented for uniform adoption by architects and draftsmen and seeks to afford a solution for the present confusion which exists in the symbolic representation of plumbing installations. Part two explains methods of preparing plumbing plans and making detail drawings. The matter of specifications is taken up with the third part and typical installations in various classes of buildings make up the final section. The last named will be found most useful in giving information as to the general needs and accepted equipment of various kinds of buildings, such as dwellings, schools, factories, hospitals, bathhouses and comfort stations. The two books together will undoubtedly be very useful as texts in engineering courses in universities, colleges and trade schools.

### School and Class Management.

By Felix Arnold. Cloth, octavo, 281 pages. Price, \$1.00, net. The Macmillan Co., New York, Chicago.

This book is the second and completing volume of Dr. Arnold's treatment of school management. The earlier book discusses the co-operation which must be had between principal and teacher and class management proper. The present volume takes up problems of school control, such as organization, classification, hygiene and such aspects of general administration as concern the principal and teacher. The planning and san-

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tation of school buildings comes in for very extended treatment. For the standards which he enumerates the author has here drawn almost entirely upon European sources. The result is not altogether satisfactory in that much of the matter is so technical that it may be doubted whether teachers will appreciate the rules and suggestions propounded.

The closing chapters of the book give a brief outline of the general organization of city school districts and indicate the relations and duties of general officers and governing boards.

Throughout the book there are evidences of the most careful and accurate treatment of every topic taken up.

#### Captains of Industry.

By James Parton. With introduction and illustrations. 114 pages. Price, \$0.25. Houghton Mifflin Co., Boston, New York, Chicago.

This number of the "Riverside Literature Series" contains twelve character sketches. Some are of famous captains of industry. There is one of Henry Bessemer, inventor of the modern process of steel making, another of Alvan Clark, of world-wide skill in perfecting telescopic glasses. Others are of workers equally fine though not so famous. One instance of this group is David Maydole who hardly boasted, when he said, "I make the best hammer that's made."

There is not an analysis or a comment in the book. They are not needed. James Parton's style is clear and readable. He tells these stories and leaves his readers to draw their own inferences as to the qualities that brought success to these men who did things—men with whom fine work was a passion.

#### Parliamentary Law.

With diagram of motions. By Nanette B. Paul, Washington College of Law. 16mo. 295 pages. Price, 75 cents. The Century Co., New York.

For various reasons clubs, conferences, conventions are numerous and increasing in number. Large or small, all are governed by the same custom or law. To those untrained in parliamentary law this book will be a boon. The clear way in which not only underlying principles are explained, but ordinary procedures are illustrated leaves little to be disused. The attention given to

elementary details, those simple points beginners most need to know, meets a long felt want. A diagram, showing the relation value of the four classes of motions, is a unique feature. The two hundred and fifty questions with concise answers, form an excellent summary. The sub-heads under the main topics of the index add to its working value.

#### Open Air Schools.

By Leonard P. Ayres, association director, department of child hygiene, Russell Sage Foundation. Cloth, 171 pages. Price, \$1.20, net; postage, 12 cents. Doubleday, Page & Co., New York.

To anyone who is studying the problem of treating anaemic or consumptive children this book will be interesting as a complete exposition of the experiments which have been conducted in England, Germany and the United States for housing such children in specially adapted schools. As associate director of the department of school hygiene of the Russell Sage Foundation, Mr. Ayres has had unusual opportunity for studying the fresh air schools established in Europe and America and has prepared a very complete resume of present knowledge concerning this form of educational endeavor.

The book describes minutely each of the schools existing at present and adds the results obtained. The most important section of the book is that which relates to the conduct and management of the schools, including directions for feeding children, abstracts of cost in several cities, manner of building and equipping the houses, clothing and wraps for children, record keeping, etc.

The closing chapter of the book is an eloquent appeal for the saving of children, who either through constitutional defects or environment are predisposed to tuberculosis, anaemia and other diseases. The volume is splendidly illustrated and is enhanced in value by a very complete bibliography of current literature on the subject.

The G. & C. Merriam Company has recently issued a most interesting circular consisting of typical pages of the Webster New International Dictionary. The value of the material added in the new Webster is strikingly illustrated in two pages in which matter added to the old Webster

is underlined in red ink. Not fifteen lines of the two pages do not contain some original definitions or explanations. The pamphlet also includes endorsements from practically all of the state superintendents of public instruction in the United States, from many college presidents and from a number of prominent city superintendents of schools.

Copies of the pamphlet will be sent to anyone upon request.

#### RECENT DECISIONS.

(Concluded from page 10)

elected without definite tenure have the right to hold their position while competent and faithful, and are subject to dismissal only for insubordination, etc., though boards of education may consolidate classes and discontinue a school or class in the interest of economy or for other good cause, and in such event to determine what teacher shall be retired.—Ibid.

Under the political code (sec. 1793), the board of education has power to transfer a teacher from class to class or from school to school, provided the teacher shall be retained in some class in a school of the grade which the certificate qualifies him to teach in.—Ibid.

Where a teacher was without cause placed upon the unassigned list while away on a leave of absence, upon her return she was entitled to immediate assignment, and she could draw her salary until lawfully assigned to a position in the same class.—Loehr vs. Board of Education, Cal. App.

"All teachers are feeling profoundly that there is something lacking in our general system of public school education. Moral and religious elements have been allowed to drop too far into insignificance, and one of the difficulties before our country today is to re-emphasize character building as an essential to education of any sort."—W. H. P. Faunce.



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The claim allowed for this patent reads: The combination with a globe of flexible material, of rigid diametrically opposed bearing blocks, a bowed bracket arm, a fixed bearing pin carried by said bracket arm adapted to enter a socket of one of said bearing blocks, an inflation tube connected to said globe and passing through the other of said bearing blocks and through the extremity of said bracket arm.

**Drawing table.** John P. Skripee, Cincinnati, Ohio.

This patent may be described as follows: In an adjustable table, the combination of two opposite housings, each provided with a vertical recess in its outside, tie-rods whereby they are connected to each other to form a rigid frame, two hollow posts, one slidably fitted into the recess of each housing, the posts on their inner side next to the housings being open and slotted on their outer side opposite to this open inner side, two screw bearings provided in the recess of each housing, one at the lower end thereof, and one near the upper end, the latter bearing extending into the hollow posts, a nut provided at the lower end of each post, screws provided in the space inclosed by the recessed part of the housings and by the hollow posts, they being fitted to the nuts on these latter and seated for rotation in the bearings provided for them in the housings between which bearings they are longitudinally confined, a bevel wheel mounted at the upper end of each screw above the upper screw bearing thereat, an operating shaft mounted in the housings above the upper ends of the screws and extending through these housings and through the hollow posts beyond which it projects on each side where its ends are shaped to receive a crank handle for manipulation, bevel wheels mounted on this operating shaft which mesh with the bevel wheels on the screws so that both of these latter may be simultaneously rotated when the operating shaft is rotated, moving thereby simultaneously both posts and a table top supported by these latter.

**Ink-Bottle Holder for Desks.** Virginia D. Maney, Hallettsville, Tex.

An ink-bottle holder comprising a resilient wire

oblong loop bent to form a substantially U-shaped member with the cross bars and legs formed by the respective sides of the loop spaced laterally apart.

**Ink-Well.** William J. Somerville, Cleveland, Ohio.

2. An ink-well comprising a frame made from a single piece of sheet metal, portions of which are cut and bent to form an annular top piece, and a strip formed of side pieces and a bottom piece which connect opposite portions of the top piece, a cap piece formed of a single piece of sheet metal surmounting the top of the frame and secured to it, and a closure member pivotally secured by the top piece of the frame and cap.

**School Seat and Desk.** Albert R. Milner, Canal Dover, Ohio.

This patent for a school desk may be described in the words of the claim allowed as: A device embodying a supporting standard, a casting mounted thereon having upstanding channeled arms, a seat pivotally mounted upon said castings to swing upwardly toward said arms, a curved back rest mounted forwardly of said arms, and a desk mounted upon and extending rearwardly from said arms and having ribs to interlock with the channels thereof. Second claim not printed here.

**File for School Desks.** Elmo W. Lee, Tamaroa, Ill.

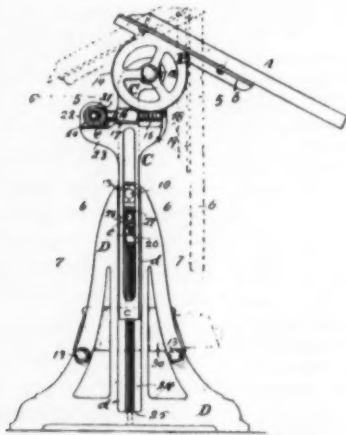
In a device for the purpose set forth, a plate, a file member rotatably connected with the plate, said file being constructed of a single strand of wire having its body portion looped and its free extension sharpened and extending beyond the loop.

**Eraser-Cleaner.** Earl A. Robinson, Emporia, Kans.

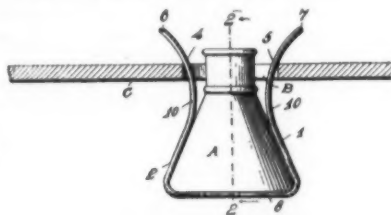
A device as specified, comprising a base, a boxing positioned on said base, pulleys mounted in the opposite ends of said boxing, an endless belt disposed over said pulleys, a cover for said boxing provided with means to hold erasers adjacent said belt, means for operating one of said pulleys and thereby said belt, a plurality of brushes carried by said endless belt and adapted for engagement against the erasers, a plurality of springs carried by said belt and means for contracting and releasing said springs for producing a beating action against the erasers.



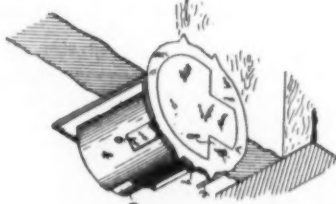
Collapsible Globe.



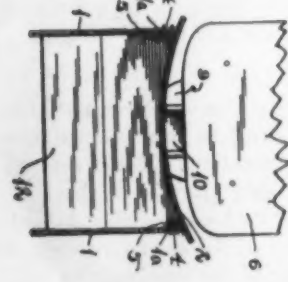
Drawing Table.



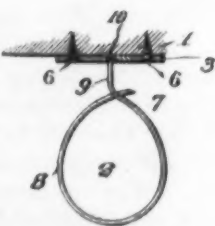
Ink Bottle Holder.



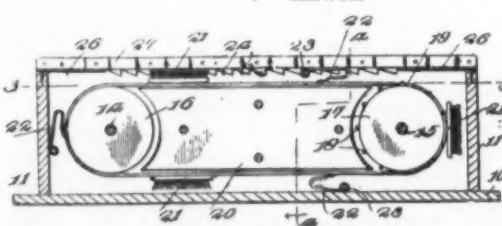
Inkwell.



Seat and Desk.



File.



Eraser Cleaner.

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Dustless Crayon

Wearing properties unsurpassed.

"CRAYOLA"

For general color work.

"DUREL"

Hard Pressed Crayon.

Samples upon application

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## PROGRESS IN VACUUM CLEANING.

During the past two years vacuum cleaning systems have become recognized by school hygienists as a necessary part of the sanitary equipment of a truly modern school building. During that time a great many school buildings throughout the United States have been equipped with sanitary vacuum cleaning systems with splendid results both from an economical and hygienic standpoint.

Many boards of education, however, have hesitated in the installation of vacuum cleaning systems, because it was felt that there was more or less danger of entangling law suits, owing to the fact that a number of inventors and manufacturers owned vital patents covering various essential parts of the different systems, which made it next to impossible to purchase an absolutely perfect plant without infringing on one or another of the patents.

Recently, however, a large New York corporation, The McCrum-Howell Company, has brought under its control eighty-five of the principal patents granted by the patent office for vacuum cleaning apparatus. This company has also taken over the business and good will of the leading manufacturers in this line and is now able to produce perfected vacuum cleaning systems, combining all of the vital features requisite for such perfection.

Following is a list of a few schools which have been equipped with complete vacuum cleaning systems:

Sixteenth Dist. School No. 1, Milwaukee, Wis.  
St. John's Military Academy, Delafield, Wis.  
Madison High School, Madison, Wis.  
St. John's Cathedral Institute, Milwaukee, Wis.  
Army War College, Washington, D. C.  
Leland Stanford University, San Francisco, Cal.  
University Gymnasium Bldg., Madison, Wis.  
Sixteenth Dist. School, Cincinnati, Ohio.  
Fort Wayne Public School, Fort Wayne, Ind.  
Sixteenth Dis. School, Ramona, Okla.  
Wallace Public School, Sterling, Ill.  
Madison Ave. School, Grand Rapids, Mich.  
Franklin High School, Franklin, Ind.  
St. Rita's College, Chicago, Ill.  
Central High School Bldg., Sault St. Marie, Mich.

Iron River High School, Iron River, Mich.  
Joint Dist. School No. 1, Chilton, Wis.  
Sauk Centre School, Sauk Centre, Minn.  
Decatur High School, Decatur, Ill.  
Tippecanoe School, Tippecanoe, Wis.  
Bowling Green School Auditorium, Bowling Green, Ky.

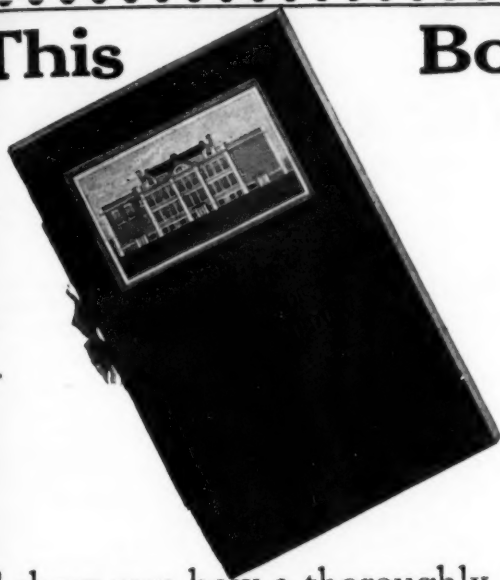
Green Bay High School, Green Bay, Wis.  
State Normal School, Milwaukee, Wis.  
Jean Parker, San Francisco, Cal.  
Sheridan Primary, San Francisco, Cal.  
West End Primary, San Francisco, Cal.  
Holly Park, San Francisco, Cal.  
Denman, San Francisco, Cal.  
Mission Grammar School, San Francisco, Cal.  
High School, Burlington, Wis.  
High School, Black River Falls, Wis.  
Moody Bible Institute, Chicago, Ill.  
First Dist. School, Milwaukee, Wis.  
East Side Manual Training School, Newark, N. J.

High School, Salem, Mass.  
In addition to the cities above named there are perhaps 150 more places in the United States where boards of education are now negotiating for vacuum cleaning systems which have already been specified by architects.

The sale and installation of vacuum cleaning systems is now placed in the hands of plumbing, steam fitting and electrical supply trades. School authorities in any place can learn of prices on machinery, cost of installation, and other particulars from their local trades people. The responsibility for proper installation is thus placed upon local houses who are always on the ground to make any corrections and repairs that may seem necessary.



## This Book



will show you how a thoroughly Fireproof Schoolhouse can be built out of

## Terra Cotta Hollow Tile

at a cost to compare favorably with similar structures which are **not Fireproof**.

*Copies sent free upon request.*



Pittsburgh, Fulton Building  
Offices in all the principal cities.

We understand that prices on vacuum cleaning machinery have been placed on a much lower basis than heretofore and believe that the time has arrived for all those who appreciate the sanitary value of dustless schools to consider seriously the equipping of all their buildings with this valuable modern improvement.

### CLOCK SYSTEMS FOR SCHOOLS.

The two principal requirements of a clock system are accuracy and reliability. A system which meets one without the other must be classed as a failure.

To meet the requirements of accuracy, it is necessary, first, that the master clock be a strictly high grade movement; and secondly, that the design of the system be such that the secondary clocks and program transmitter depend solely on the master clock for their time keeping qualities and not, in any way, upon springs contained within themselves. Age and usage will cause the latter to vary in different degrees and the uniformity of the system is lost.

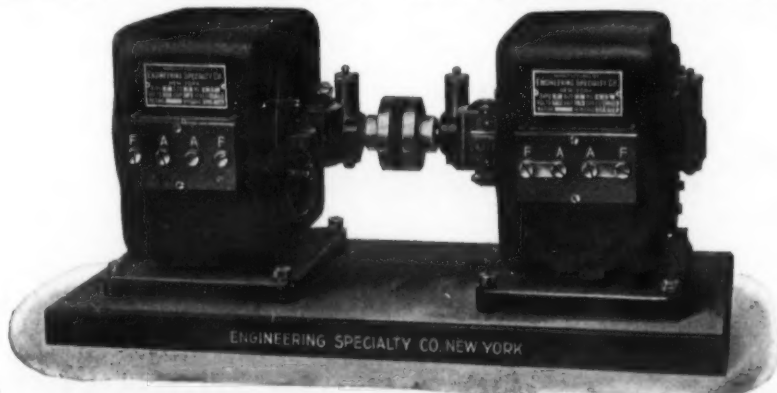
No less important than accuracy is reliability. It should not be necessary to keep constantly "finkering" at a clock system to keep it going. The failure of even one clock of a system often destroys confidence in the entire system and the discipline of the school suffers as a consequence. The requirements stated above were constantly

kept in mind in designing and perfecting the Stamford Electric Clock System, manufactured by the Engineering Electric Mfg. Co., Stamford, Conn.

In the first place, the master clock movement is a 60 beat movement of great accuracy and of such strong and rugged construction that it can carry a liberally proportioned self-cleaning circuit closer for the secondary clock circuit. Furthermore, this circuit closing device is so designed that ample time is allowed for the secondary clock movements to become fully energized so as to perform their functions properly.

The secondary clocks have no springs, but operate by magnetism and the gravity of a weighted lever arm—a force which never varies. There is nothing in the mechanism of the secondary clock themselves, therefore, to cause them to vary from the master clock after they are once adjusted in the factory.

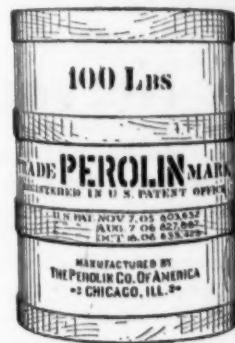
To insure reliability the circuit closing device and contacts have been generously proportioned and no flimsy or delicate construction enters into any part of the system. Nothing adds more to make a dependable system than a reliable source of power. If a primary battery is used, only the very best should be considered. If there are electric light or power circuits in the school it is preferable to install a storage battery and charging outfit. A special battery charging outfit designed for this purpose is illustrated herewith.



Battery Charging Outfit for Electric Program Clock Systems

## DUST

It is well known to all educators that dust is not only a destructive agent, but is the most prolific source of disease germs, propagating new colonies immediately upon lodgment.



## PEROLIN

The great German floor sweeping compound, actually destroys dust through the process of absorption, taking up the particles much as a sponge drinks in water. In addition, it scours and polishes the floor and neutralizes all unpleasant odors. It is the

### Cheapest and Most Effective

of all the dust-destroying processes, requiring no special equipment other than the willing arms of the janitor and an ordinary brush or broom.

## The Perolin Company of America

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If your dealer does not handle PEROLIN, write us direct.

### Supplies and Equipment News.

Altoona, Pa. The school buildings in Logan township have recently been equipped with Waterman-Waterbury ventilating heaters.

Lawrence, Kans. Contracts for 200 students' desks and blackboards and teachers' tables have been awarded to the Peabody School Furniture Company, North Manchester, Ind.

Bridgeport, Pa. Contracts for general school supplies awarded to Thomas Sames, Norristown; book supplies to W. T. Kayser & Co., Philadelphia.

Norfolk, Va. 800 desks for the new high school have been bought from the American Seating Company.

Topeka, Kans. Contracts awarded: W. A. L. Thompson, woodworking equipment; Southwestern Mfg. Co., claymodeling and woodworking benches; Lewis & Kitchen, Kansas City, furnaces.

Weymouth, Mass. Contract for general school supplies has been awarded to Edward E. Babb, Boston.

Zanesville, O. The school board has ordered Claudy adjustable desks for a new school building recently completed.

Milwaukee, Wis. The new tenth and eleventh district schools have been equipped with four-sweeper vacuum cleaning plants. The machines are of the "Aero" type, manufactured by the McCrum-Howell Company and were installed by a local house.

Lansing, Mich. Contracts for paper, pencils and miscellaneous supplies have been awarded to the A. Flanagan Co., and the Atlas School Supply Company, Chicago; typewriters, L. C. Smith Typewriter Co., New York; bookkeeping desks and seats, Cleveland Seating Company; laboratory stools, E. B. Cole Company; manual training lockers, Lansing Cabinet Company.

The entire capital stock of the Springfield Sanitary Drinking Fountain Company has recently been acquired by John Hall, Jr., inventor of the drinking device which the firm manufactures. Mr. Hall shortly contemplates the erection of a factory building to accommodate the increasing business. During the past month a number of important patents on drinking fountains and fountain filters have been granted to Mr. Hall, which when embodied in the Springfield Sanitary Fountain will greatly improve the usefulness of this popular device.



## Nervousness

The use of **Horsford's Acid Phosphate** has been found exceedingly valuable in nervous disorders, restoring energy, increasing mental and physical endurance, and as a general tonic.

Excellent results have also followed its use in the treatment of headache arising from derangement of the digestive organs or of the nervous system.

## HORSFORD'S Acid Phosphate.

(Non-Alcoholic.)

If your druggist can't supply you send 25 cents to RUMFORD CHEMICAL WORKS, Providence, R. I., for trial size bottle, postage paid.

### Correcting Her Answer.

A teacher in the Garfield school, says the Kansas City Star, was teaching a primary class the beginning of arithmetic.

"Now I have one pencil in my right hand and one in my left," she said. "How many pencils have I? Helen, you may answer."

"Two," piped a small voice.

"Then one and one make two, do they not?"

"Sure."

The teacher frowned at the disrespectful answer.

"That's hardly what you should have said," she said. "Will some one in the class tell Helen what her answer should have been?"

There was a moment of hesitation. Then one brown fist shot confidently into the air.

"Ah, James, you may tell Helen what she should have said."

"Sure, Mike!" shouted Jimmie, in a tone of triumph.

### Quiet for Once.

"Johnny," said the boy's mother, "I hope you have been a nice, quiet boy at school this afternoon."

"That's what I was," answered Johnny. "I went to sleep right after dinner, and the teacher said she'd whip any boy in the room who waked me up."

### And Figures Don't Lie.

Johnny came home the other night in high glee, wearing the arithmetic medal.

"What is that for?" asked his mother.

"That's the prize for doing examples," said Johnny. "I did this one: 'If our new baby weighs eleven and one-half pounds, and gains an ounce each day'—'cause you told Mrs. Smith she did yesterday—how much will she weigh when she's twenty years old? And the answer was, four hundred and sixty-six pounds. And the teacher said I earned the prize."

### Long Time Coming.

Real College Boy (waiting for his change in department store)—This suspense is simply maddening, Esmeralda; hadn't you better start a tracer after my change?

Saleswoman (meaningly, but sweetly)—Just like money from home, isn't it, Archibald?

Ein unsicherer Kantonist.

Lehrer: „Haben Sie diese Aufgabe ohne fremde Hilfe gemacht?"

Schueler: „Jawohl, Herr Professor."

Lehrer: „Na, na! Sie sollten doch die Gleichung mit zwie Unbekannten auflösen, mir scheint aber, Sie haben Sie mit zwie Bekannten aufgelöst!"

### He Knew by Experience.

A little boy, who had just this season joined Sunday school, was asked by his mother how he liked it.

"Why!" exclaimed Charlie disgustedly, "they don't know much. The teacher asked what was the collec', and I was the only one who knew."

"And what did you say, dear?"

"Why, I told them pretty quick that it was a pain in the stomach."

### Well Informed.

Teacher—A man invests \$100 at 65 per cent interest. What does he get in three months?

Boy—A shock! Dem get-rich-quick concerns busts in about t'ree months!



—Meggendorfer Blätter.

Life without Industry is Guilt, and Industry without Art and Education is Brutality.—*Ruskin.*

¶ Not that art or education or art education is being neglected these busy days, but sometimes you forget how much

## DIXON CRAYONS

add to the joy and real accomplishment in School Drawing.

¶ Every teacher of the manual arts should have one of our sample assortments. 20 colors to choose from and it will be sent without charge to all teachers.

Joseph Dixon Crucible Co., Jersey City, N. J.

### Applied Mathematics.

When little Johnnie came home from school one afternoon he found a caller with his mamma, says an exchange. Johnnie sat down and the caller, as usual, began conversation.

"Do you go to school, Johnnie?"

"Uh-huh—yes, ma'm."

"What are you studying?"

"Readin', writin', an' 'rithmetic."

"O, you are studying arithmetic, are you?"

"Uh-huh—yes, ma'm."

"And how far along are you in arithmetic?"

"Purty far."

"But just how far are you?"

"O, over t' th' guzintus."

"Where?"

"T' th' guzintus."

"What on earth do you mean by that, Johnnie?"

"O, two guzintu four, two guzintu six, two guzintu eight—you know—the guzintus."

### Does It Look Like It?

Willie came in from the street with his clothes torn and muddy, and with a bloody nose. His mother looked at him and asked how he got in that condition:

"Tony Rorke gave it to me," said the boy.

"Haven't I told you not to play with the Rorke boy any more?"

"Say, look here ma," said the young American in surprise. "Do I look as if I'd been playin'?"

Teacher—So you can't do a simple sum in arithmetic? Now let me explain to you. Suppose eight of you have together forty-eight apples, thirty-two peaches and sixteen melons, what would each one of you get?

"Cholera morbus," replied Johnny.

"What is geography?" asked the father who was testing his son's progress in study.

"Geography," replied little Jimmy Jiggs, "is what you put inside your trousers when you think you are going to get a whipping."

### Thought He Knew.

"There is but one kind of rock that grows," said the professor.

"Can any of you mention it?"

"Yes, sir," replied the Irish boy. "The sham-rock."

### His First Trousers.

Little Tommy was at Sunday school in his first pair of trousers, and a picture of a lot of little angels was before the class.

"Tommy, would you like to be a little angel?" asked the teacher.

"No, ma'am," replied Tommy, after a careful inspection of the picture.

"Not to be an angel, Tommy! Why not?" inquired the teacher in surprise.

"'Cause, ma'am, I'd have to give up my new pants."

## ECONOMY AND QUALITY

Investigate the **ELSON READERS** for the Grammar Grades

**SCOTT, FORESMAN AND COMPANY**  
Chicago, 378 Wabash Avenue New York, 37 East 28th St.

## THE MOTHER GOOSE PRIMER (1910)

BY BELLE WILEY

A practical school room book with action, character and artistic originality.

**CHARLES E. MERRILL CO.**

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Publishers of School and College Text-Books

NEW YORK



## There is a Good Reason

WHY THE STUDENT SHOULD CHOOSE  
THE SCHOOL WHICH TEACHES THE

# REMINGTON

She knows the reason—So does the School man—  
So does everyone



The MOST positions and  
The BEST positions are  
REMINGTON POSITIONS

REMINGTON TYPEWRITER COMPANY  
(INCORPORATED)

NEW YORK AND EVERYWHERE

### PROFESSIONAL SUPERVISION.

A superintendent of schools should be more than a purchasing agent or a clerk of the school committee. He should have such a knowledge of school methods, of the principles underlying school management, of the history and progress of education, as will enable him to perform his duties with the same certainty of success as would attend expert work in other professions. One would not go to a lawyer for treatment for his physical ills, nor would he consult a physician as to his case at court. No more should we intrust the direction of the details of school work to one who is not familiar with them.

Teaching should not be regarded as haphazard work, to be done as well one way as another. To teach effectively, one must not only have a knowledge of subjects, but should be familiar with the best methods by which the treatment of these subjects is to be developed. He must have knowledge of the psychology of the child mind, he should know the history and development of educational work and systems that he may know what experiments have resulted in failure as well as what methods have met with success. He should be familiar with the progress of modern educational thought and he should know what is being done by other teachers and with what success. He should most of all be a constant student of the material with which he has daily to work.

The superintendent of schools should be in every sense the leader of his teachers in all these things. To be such a leader involves a high quality of professional ability and skill. The superintendent of schools should likewise be in a position to assume leadership in the community in all matters of educational concern. This again assumes not only a fundamental knowledge of school work but involves constant study of educational progress in all larger fields.—Payson Smith, Maine.

### COMING CONVENTIONS.

- Oct. 7-8. Wisconsin Association of City Superintendents at Madison.
- Oct. 10. California State Council of Education in San Francisco.
- Oct. 19-20-21. North Dakota State Teachers' Association at Bismarck.
- Oct. 20-22. Kansas State Teachers' Association at Topeka.
- Oct. 21. Connecticut State Teachers' Association at Hartford and New Haven. G. H. Tracy, president, Danbury; S. P. Willard, secretary, Colchester.
- Oct. 27-28-29. Rhode Island Institute of Instruction at Providence.
- Oct. 27-29. Vermont Teachers' Association at Rutland. Supt. E. G. Ham, president, Randolph.
- Oct. 28-29. Northern Illinois Teachers' Association, Western Section, at La Salle. S. F. Parsons, secretary, De Kalb.
- Nov. 1-2-3. South Dakota Educational Association at Huron. J. F. Olander, secretary, Pierre.
- Nov. 3-4. Minnesota Associated School Boards at St. Paul. (with M. E. A.). Geo. E. Perley, president, Moorhead.
- Nov. 3-4-5. Minnesota Educational Association at St. Paul. Supt. E. M. Phillips, president, Albert Lea; John M. Guise, secretary, St. Paul.
- Nov. 3-4-5. Iowa State Teachers' Association at Des Moines.
- Nov. 3-5. Wisconsin State Teachers' Association at Milwaukee. G. H. Landgraf, president, Marinette; Katherine Williams, secretary, Milwaukee.
- Nov. 4-5. Northern Illinois Teachers' Association, Eastern Section, at University of Chicago, Chicago. S. F. Parsons, secretary, De Kalb.
- Nov. 14-17. Northern California Teachers' Association at Redding.
- Nov. 17-18-19. National Society for the Promotion of Industrial Education at Boston.
- Nov. 21-23. Colorado State Teachers' Association at Denver. Wilson L. Schafer, president; W. W. Remington, secretary, Denver.
- Nov. 23-25. Nebraska State Teachers' Association at Lincoln.
- Nov. 25. North Texas Teachers' Association at Van Alstyne. Charra Barlow, corresponding secretary, Dallas.
- Nov. 24-26. Idaho State Teachers' Association at Boise.

THE best way for you teachers to learn the value of Devoe School Water Colors is to use them in your color work.

Devoe School Water Colors are true in color, uniform in quality; perfectly adapted to your needs. You'll find them in use in the best schools in the country; but the strongest point about them is the paints themselves.

Here is an illustration of one of the boxes.



Box 122 has four colors: Carmine, Ultramarine Blue, Black and Perfect Yellow, and one No. 7 Brush. Charcoal Gray or an extra cake of Yellow can be substituted for Black.

Use Devoe Wood Stains for manual training work.

Devoe Art Stencils and Stencil colors; Devoe brushes. The name "Devoe" means excellence; you'll never find it on anything poor.

Special rates to schools and teachers.  
Address Dept. 5 for catalogue.

## Devoe

176 Randolph Street, Chicago.  
Fulton and William Streets, New York  
1214 Grand Avenue, Kansas City

Dec. 26-30. Arizona Teachers' Association and Joint Territorial Teachers' Institute at Douglas.

Dec. 27-28-29. Montana State Teachers' Association at Helena.

Dec. 21-23. Indiana State Teachers' Association at Indianapolis.

Dec. 27-28-29. New Mexico Teachers' Association at East Las Vegas. Hon. J. E. Clark, president, Santa Fe.

Dec. 27-29. New Jersey Teachers' Association at Atlantic City. J. J. Savitz, president, Westfield.

Dec. 27-28-29. Illinois State Teachers' Association at Chicago. Ella Flagg Young, president; Caroline Grote, secretary, Macomb.

Dec. 27-29. American Association for the Advancement of Science at Minneapolis, Minn. A. Ross Hill, vice-president, Columbia, Mo.; C. R. Mann, secretary, University of Chicago, Chicago.

Dec. 27-29. Washington Education Association at the University of Washington, Seattle. O. C. Whitney, secretary, Tacoma.

Dec. 27-29. Arkansas State Teachers' Association at Little Rock. A. L. Hutchins, corresponding secretary, Augusta, Ark.

Dec. 27-30. Florida Education Association at Pensacola.

Dec. 27-31. American Historical Association at Indianapolis.

Dec. 27-29. Southern Education Association at Chattanooga, Tenn. D. B. Johnson, president, Rock Hill, S. C.

Dec. 28-29. Ohio School Improvement Federation at Columbus. W. N. Beetham, secretary, Bucyrus.

Dec. 28-29-30. State Teachers' Association of Texas at Abilene. P. W. Horn, president, Houston.

Dec. 28-29-30. Wyoming Teachers' Association at Cheyenne. Hon. A. D. Cook, president, Cheyenne.

Feb. 15-16-17. Oklahoma State Teachers' Association. Meeting place not yet selected.

Feb. 23-24-25. Southern Minnesota Teachers' Association at Mankato. J. A. Hancock, president, Mankato.

Nov. 17-19. National Society for the Promotion of Industrial Education at Boston.

Dec. 27-28-29. Utah Teachers' Association at Salt Lake City. A. C. Nelson, state superintendent of public instruction.



## THE TEACHER'S READING.

The titles of books chosen by the various state teachers' reading circles indicate, possibly better even than the educational press, the topics of greatest current interest to the teaching profession. A list like the following one is certainly interesting as a reflection of the trend of educational thought.

Two subjects stand out as general in their appeal: Health and methods of study. Fifteen states take up the former by the selection of Allen's Civics and Health. Teachers of eleven states will learn how they can best study and how best teach their charges this important art.

The teachers' reading circle books for the school year 1910-11, which have been adopted up to the time this issue of the "Journal" goes to press, are as follows:

**Alabama.** White's Art of Teaching (American); Allen's Civics and Health (Ginn); Arnold's Reading, How to Teach It (Silver).

**Arizona.** Allen's Civics and Health (Ginn); Chamberlain's Standards in Education (American).

**Arkansas.** Dinsmore's Teaching a District School (American); Kern's Among Country Schools (Ginn); McMurry's How to Study and Teaching How to Study (Houghton Mifflin Co.); Ferguson-Lewis' Elementary Principles of Agriculture (Ferguson Pub. Co., Sherman, Tex.); Allen's Civics and Health (Ginn); Hart's Essentials of American History (American).

**California.** No state teachers' reading circle.  
**Colorado.** Allen's Civics and Health (Ginn); Bagley's Classroom Management (Macmillan); James Baldwin's Six Centuries of English Poetry (Silver).

**Connecticut.** No selections.

**Delaware.** No reading circle.

**Florida.** No state reading circle. Every county has its own circle for teachers.

**Georgia.** No state teachers' reading circle.

**Idaho.** No selections.

**Illinois.** Allen's Civics and Health (Ginn); Ham's Mind and Hand (American).

**Indiana.** McMurry's How to Study and Teaching How to Study (Houghton Mifflin Co.); Allen's Civics and Health (Ginn).

**Iowa.** Dinsmore's Teaching a District School (American); Allen's Civics and Health (Ginn).  
**Kansas.** Gilbert's School and Its Life (Silver); Warren's Elements of Agriculture (Macmillan).

**Kentucky.** Hamilton's The Recitation (Lippincott); Allen's Civics and Health (Ginn); Dinsmore's Teaching a District School (American).

**Louisiana.** Davenport's Education for Efficiency (Heath); Allen's Civics and Health (Ginn); McMurry's How to Study (Houghton Mifflin Co.).

**Maine.** No state teachers' reading circle.

**Maryland.** McMurry's How to Study (Houghton); Coman's Industrial History of the United States (Longmans); Fisher & Cotton's Agriculture for Common Schools (Scribner's); Heydrick's How to Study Literature (Hinds, Noble & Eldredge); Seward's Narrative and Lyric Poems.



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**Massachusetts.** No state teachers' reading circle.

**Michigan.** Allen's Civics and Health (Ginn); Edwin Holt Hughes' The Teaching of Citizenship (W. A. Wilde Co.); Schaeffer's Thinking and Learning to Think (Lippincott).

**Minnesota.** Warren's Elements of Agriculture (Macmillan); Hughes' The Teaching of Citizenship (Wilde); Hamilton's The Recitation.

**Mississippi.** Chamberlain's Standards in Education (American); Scott's Social Education.

**Missouri.** Warren's Elements of Agriculture (Macmillan); Allen's Civics and Health (Ginn).  
**Montana.** No selections.

**Nebraska.** Barrett's Practical Pedagogy (Heath); Allen's Civics and Health (Ginn); Smith's Evolution of Dodd (Rand-McNally).

**Nevada.** No state teachers' reading circle.

**New Hampshire.** No state teachers' reading circle.

**New Jersey.** No state teachers' reading circle.

**New Mexico.** Dinsmore's Teaching a District School (American); Chamberlain's Standards in Education (American); Ritchie's Primer of Sanitation (World Book Co.).

**New York.** No state teachers' reading circle.

**North Carolina.** Dinsmore's Teaching a District School (American); Wray's Jean Mitchell's School (Pub. School Pub. Co.); McMurry's How to Study (Houghton); Ritchie's Primer of Sanitation (World Book Co.).

**North Dakota.** Fisher and Colton's Agriculture for Common Schools (Chas. Scribner's Sons); Gillette's Vocational Education (American Book Co.); Barrett's Practical Pedagogy (Heath).

**Ohio.** McMurry's How to Study (Houghton); Chubb's Stories of Authors; Fess' Political History; Shakespeare's As You Like It.

**Oklahoma.** State has a large list changed every five years.

**Oregon.** No state teachers' reading circle in existence. The state library commission supplies professional reading to teachers.

**Pennsylvania.** No state teachers' reading circle.

**Rhode Island.** No state teachers' reading circle. Most towns and cities have pedagogical as well as general libraries and superintendents direct professional reading among their teachers. The state department of education sends out "Teachers' Traveling Libraries" to superintendents.

**South Carolina.** No selections.

**South Dakota.** Barrett's Practical Pedagogy (Heath); McMurry's How to Study (Houghton); Bryan's Basis of Practical Teaching; Long's American Poems (American).

**Tennessee.** No selections.

**Texas.** McMurry's How to Study (Houghton); McKeever's Psychologic Method in Teaching (Crane & Co.); Monroe's Brief History of Education (Macmillan); Bronson's American Literature (Heath); Allen's Civics and Health (Ginn); Cumming's Nature Study in the Primary Grades (American).

**Utah.** McMurry's How to Study (Houghton); Fiske's Meaning of Infancy; Eliot's Education for Efficiency; Cuddeback's Changing Conception of English; Palmer's Self-Cultivation in English.

**Vermont.** No state teachers' reading circle.

**Virginia.** Allen's Civics and Health (Ginn); McMurry's How to Study and Teaching How to Study (Houghton); Chubb's The Teaching of English, elementary section (C. W. Bardeen).

**Washington.** Bagley's Classroom Management (Macmillan); Swift's The Mind in the Making (Scribner); Farnsworth's Education Through Music (American); Briggs & Coffman's Reading in the Public Schools (Row-Peterson Co.); Gordy's New Psychology (Hinds).

**West Virginia.** No selections.

**Wisconsin.** No state teachers' reading circle. Ten cents per capita is taken from seven-tenths mill tax and used for the purchase of library books for the schools of the state.

**Wyoming.** School laws of Wyoming; Monroe's History of Education (Macmillan); Allen's Civics and Health (Ginn); McMurry's How to Study (Houghton); Buffum's Arid Agriculture, published by author at Worland, Wyo.

Springfield, Ill. The revised edition of the Mother Tongue language and grammar books has been introduced in the public schools.

Memphis, Tenn. The school board has introduced the following books into the schools: Bennett's Caesar (Allyn & Bacon); Bennett's Cicero; Bennett's Virgil; Bennett's Latin grammar (optional with Allen & Greenough's text); West's Ancient World (Allyn & Bacon); Ware's Industrial Education books.

Ritchie's Text on Hygiene, Sanitation and Physiology have recently been introduced in seventeen counties of the state of Washington. The list includes such important counties as: Lewis, Stevens, Pierce, Kitsap, Snohomish and Whatcom counties.



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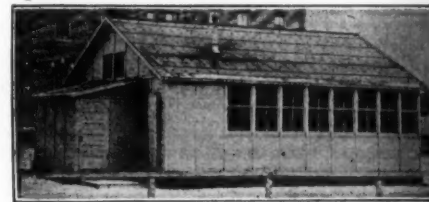
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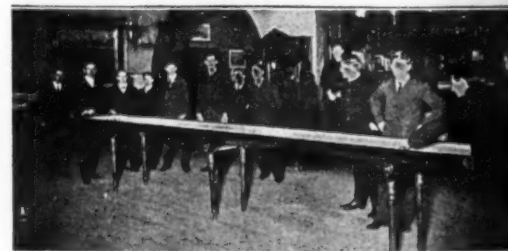


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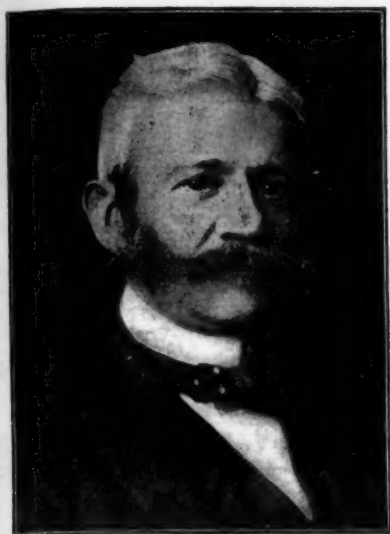
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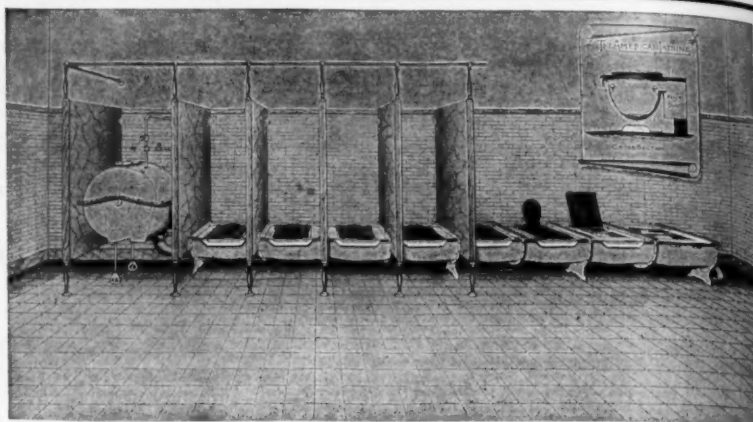
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**Alabama.**

Mobile—Lura Cralg school will be erected.

**Arizona.**

Meza—Arch. Wm. F. Drew has plans for school.

**Arkansas.**

Pine Bluff—Colored school will be erected. Helena—High school will be erected; \$25,000. London—School will be erected. Huntington—Site was selected for school.

**California.**

Los Angeles—1-story school will be erected. Cotati—\$10,000, bonds, were voted for school. Princeton—School will be erected. Lancaster—School will be erected. Riverside—Bids were received for school, Arlington Sta.

**Colorado.**

Montrose—School will be erected; \$10,000. Sterling—County high school will be erected. Genoa—School will be erected.

**Connecticut.**

Manchester—School will be erected.

**Florida.**

Ft. Myers—Grade school will be erected.

**Georgia.**

Atlanta—Archts. King & Walker, New York, have plans for school; \$36,000. Grantville—Archts. Bleckley & MacDonald, Atlanta, have plans for school; \$12,000.

**Illinois.**

Waldron—School will be erected. Green Valley—School will be erected. Henderson—School will be erected. Washington—Arch. H. J. Hotchkiss, Peoria, will prepare plans for school. Elmhurst—School will be erected; \$40,000. Paxton—School will be erected. Canton—Contract was let for John Bean school. Cedar Point—Arch. J. F. Richardson, Ottawa, has plans for 2-story school. Chicago—2-story school will be erected, E. Eighty-fourth St. Elmhurst—8-room school will be erected, north side. Rockford—Consoli-

dated school will be erected; \$18,000. Channahon—School will be erected.

**Indiana.**

Frankfort—One-room school will be erected. Danville—Two-story school will be erected. Castleton—Arch. Layton Allen, Indianapolis, has plans for 10-room school. Orleans—Archts. H. L. Bass & Co., Indianapolis, have plans for 2-story school. Petersburg—School will be erected. Cypress—Two-story school will be erected. Union twp. Brazil—Two schools will be erected.

**Iowa.**

Bouton—School will be erected. Marion—School will be erected. Imogene—School will be erected. Eddyville—Two schools will be erected. Mediapolis—School will be erected.

**Kansas.**

Topeka—2-story school will be erected; \$42,000. Silver Lake—\$9,000, bonds, were voted for school. Kansas City—6-room school will be erected, E. Argentine. Waldo—School will be erected. Atwood—Arch. L. M. Wood, Topeka, has plans for 2-story school; \$12,000. Florence—Two schools will be erected. Kansas City—Two schools will be erected, Rosedale Sta. Chardon—School will be erected, Rose Hill. Wichita—Arch. F. F. Parsons has plans for 8-room school; \$25,000. Hoisington—Kansas Architect Co., Great Bend, have plans for school; \$15,000. Merriam—School will be erected; \$20,000. Easton—High school will be erected. Athol—School will be erected.

**Kentucky.**

Cadiz—\$12,000, bonds, were voted for school. Dry Ridge—Contract was let for school. Louisville—Archts Thomas & Boehme have plans for parochial school; \$75,000.

**Louisiana.**

Baton Rouge—School will be erected, Seventh ward. Doyline—School will be erected. Atlanta—Arch. Wm. Drago, New Orleans, has plans for 2-story school. Cottonport—Archts. Favrot & Livaudais, New Orleans, have plans for 2-story school. St. Martinville—Archts. Favrot & Livaudais, New Orleans, have plans for 2-story school. New Orleans—Contract was let for parochial school.

**Maine.**

Brewer—Arch. C. P. Crowell, Bangor, has plans for school, S. Main St. Pemaquid—High school will be erected.

**Maryland.**

Damascus—School will be erected. Germantown—School will be erected.

**Massachusetts.**

Northampton—Arch. O. E. Nault, Worcester, has plans for parochial school; \$20,000. Cambridge—Arch. Chas. Greco, Boston, has plans for school; \$105,000. East Saugus—School will be erected. Waltham—French parochial school will be erected.

**Michigan.**

Calumet—School will be erected; \$30,000. Battle Creek—Parochial school will be erected. Hanover—Arch. L. H. Field, Jr., Jackson, has plans for high school; \$12,000. Birmingham—Archts. Van Leyen & Schilling, Detroit, have plans for 2-story school. Marshall—4-story school will be erected. Adrian—Arch. P. Dederichs, Detroit, has plans for school. Bay City—Contracts were awarded for parochial school. Monroe—Bonds were voted for high school. Albion—6-room school will be erected.

**Minnesota.**

St. Charles—School will be erected. Pillager—Three schools will be erected. Duluth—School will be erected, St. Louis county. South Haven—School will be erected, Dist. No. 136. Triumph—School will be erected. Albion—School will be erected. Rochester—High school will be erected. Glenwood—School will be erected. Nevis—School will be erected.

**Mississippi.**

Vicksburg—Agricultural high school will be erected. Cedars—School will be erected. Villanova—School will be erected. Yokena—School will be erected.

**Missouri.**

Sedalia—Arch. T. W. Bast has plans for three schools; \$60,000. Poplar Bluff—Arch. B. Walker has plans for school; \$12,000. Two-room school will be erected. Salem—Arch. H. H. Hohenschild, St. Louis, has plans for high school; \$23,000. Frazer—School will be erected.

**Montana.**

Missoula—Bids were opened for the Prescott school. Bids were opened for Hawthorne school.

**Nebraska.**

Elkhorn—Archts. Nippell & Bellas, Omaha, have plans for school.

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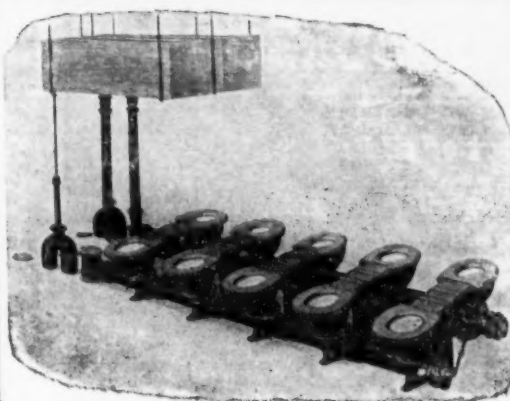
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### New Jersey.

Camden—Archts. Seymour & Paul Davis, Philadelphia, Pa., have plans for colored manual training school; \$80,000. Linden—Arch. Louis Quien, Jr., Elizabeth, has plans for school; \$80,000. Hamburg—Arch. Wm. T. Towner, New York, has plans for school; \$14,000. New Durham—Arch. Fred Hensel, West Hoboken, has plans for 3-story school; \$50,000. Harrison—2-story school will be erected; \$60,000. Dundee Lake—Arch. W. J. Bartels, Passaic, has plans for school; \$7,500.

### New Mexico.

Duran—School will be erected. Deming—2-story school will be erected.

### New York.

Springwater—Arch. G. M. Rees, Rochester, has plans for 2-story school. Ogdensburg—Arch. David Kieff, Watertown, has plans for school; \$60,000. Poughkeepsie—Arch. Wilson Potter, New York, has plans for school; \$50,000. Newark—3-story school will be erected. Rochester—Archts. Gordon & Madden have plans for parochial school. Ft. Edward—Arch. Wm. J. Scales, Glens Falls, has plans for 10-room school; \$27,000. Medina—High school will be erected; \$75,000. Watervliet—10-room school will be erected; \$35,000. Wyoming—Contract was let for school.

### North Carolina.

Centerville—6-room school will be erected; \$7,000.

### North Dakota.

Fargo—School will be erected. Belfield—Three schools will be erected. Concrete—Archts. Haxby & Gillespie have plans for school. Sentinel Butte—Eight schools will be erected. Alexander—Four schools will be erected. Gladstone—School will be erected. Kenmare—Parochial school will be erected; \$25,000.

### Ohio.

West Alexandria—High school will be erected. Chicago—High school will be erected. Grade school will be erected. Eaton—School will be erected, Dist. No. 5. Trenton—Arch. W. D. Lingler, Hamilton, has plans for high school; \$25,000. Blaine—School will be erected. Mt. Sterling—School will be erected, Sub-Dist. No. 8. Arcanum—Bids were received for school. Springfield—Parochial school will be erected. Cleveland—Four schools will be erected. Groveport—High school will be erected.

### Oklahoma.

Kenton—Arch. J. T. W. Jennings, Ft. Smith, Ark., has plans for 8-room school. Preston—School will be erected; \$10,000. Mounds—Archts. C. Sudhoelter & Co., Muskogee, have plans for 3-story high school; \$60,000. Britton—10-room school will be erected, West Side; \$25,000. Calumet—Arch. T. J. Galbraith, Chickasha, has plans for school; \$11,000. Stroud—Archts. Bailey & Bailey, Oklahoma City, have plans for school; \$25,000. Tonkawa—Archts. Layton, Smith & Hawk, Oklahoma City, have plans for school; \$25,000. Watonga—Arch. R. W. Shaw, Enid, has plans for school; \$20,000. Bison—Arch. A. A. Crowell, Enid, has plans for school; \$10,000. Lugert—3-room school will be erected.

### Oregon.

Plasant Hill—3-room school will be erected.

### Pennsylvania.

York—12-room school will be erected, North York. Butler—2-story school will be erected;

\$30,000. Tower City—School will be erected. Philadelphia—Archts. Magaziner & Potter have plans for school; \$50,000. Scranton—Arch. P. J. Morris, Scranton, has plans for 8-room school, Dunmore Sta.; \$30,000. Williamstown—Arch. Geo. I. Lovatt, Philadelphia, has plans for 3-story parochial school. Nanticoke—16-room school will be erected. Sheffield—Arch. J. S. Kennedy, Brooklyn, has plans for high school. Dupont—4-room school will be erected; \$10,000. Tyrone—The city voted \$40,000 for high school. Dallastown—12-room school will be erected. McKittrick—School will be erected. Irwin—School will be erected. Plains—14-room high school will be erected. Camden—School will be erected on Chestnut Street. Allentown—10-room school will be erected, Third ward. Mineral Point—School will be erected.

### South Dakota.

Aberdeen—High school will be erected; \$125,000. Kimball—School will be erected. Lester-ville—School will be erected.

### Tennessee.

Raleigh—School will be erected.

### Texas.

Chilton—School will be erected; \$12,000. Ringgold—School will be erected. Allen—2-story school will be erected. Falfurrias—2-story school will be erected. Dobbin—2-story school will be erected. Huntsville—High school will be erected. Jackson-ville—School will be erected; \$25,000. Victoria—Site was selected for school. Elgin—2-story school will be erected. Houston—4-room school will be erected. Mart—School will be erected. Mt. Pleasant—3-story school will be erected.

### Utah.

Lehi—8-room school will be erected. Leam-ington—Archts. Wat-kins & Birch, Salt Lake City, have plans for school.

### Vermont.

Johnson—2-story school will be erected. Chester—Bonds were voted for school.

### Virginia.

Quinton—Propose erection of school. Rad-ford—Site was selected for school, East Rad-ford.

### Washington.

Bossburg—Contract was let for school. Col-ville—High school will be erected; \$25,000.

### West Virginia.

Uniontown—Arch. W. J. Alexander, New Martinsville, has plans for school; \$3,000.

### Wisconsin.

Red Granite—\$12,000 was voted for school. Chilton—School will be erected. Armstrong Creek—School will be erected. Oconomowoc—4-story seminary will be erected. Ladysmith—Training school will be erected. Boscobel—Arch. Derrick Hubert, Menominee, Mich., has plans for school; \$26,000. Livingston—School will be erected. Blackcreek—School will be erected, Dist. No. 2. Saukville—School will be erected. Enterprise—Bids were received for school. Bayfield—Parochial school will be erected.

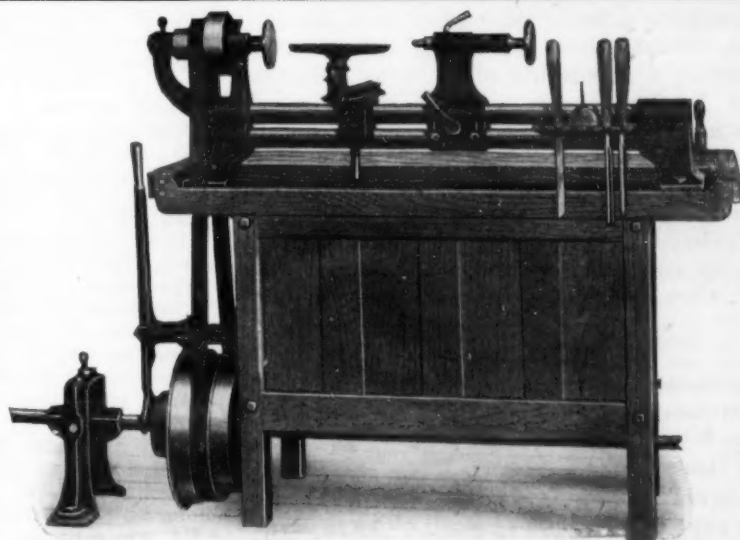
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of fourteen Government Schools in Alaska. We feel that we could hardly offer greater evidence of the exceptional merit and completeness embodied in our benches.



## FREEDOM OF THE HIGH SCHOOL.

The high school is destined to be the greatest educational institution of modern democracy. Colleges and universities are limited in their usefulness by the expenditure of time and money demanded. The elementary school brings together all classes, but it teaches only the rudiments. Colleges with their narrow and false ideals of culture, with their ideas of educational values subject to direct utility, insist on their college methods in secondary schools and on filling the teaching positions in those schools with their own graduates and specialists. Their domination has reached a degree of intolerable impertinence. Our first requisite for efficient work is freedom, and the high school men must fight the battle to the finish. We are on the ground and know the needs of our pupils and are in a position to accept or reject suggestions from the colleges as may seem desirable, in entire independence. The high schools in desperation have been drawing a line of cleavage between those fitting for college and those who are not. This is unnecessary, unfitting and undemocratic.

The second great hindrance is the difficulty of selecting suitable teachers on account of the low salaries paid. Many continue for love of the work, but there is danger of getting teachers inadequately trained or else specialists who look at the universe through a microscope. It will be well to dispense with the specialist, if we can secure teachers through whom the currents of humanity flow unimpeded.

The third difficulty is with the pupil or perhaps with the spirit of the times. We find listlessness, low ideals of accuracy, and lack of intellectual snap and nerve. We rarely find humiliation at failure. The college student's disapproval of any enthusiasm on the part of any member of the class seems to have reached and permeated the high schools. Our children are quick, keen, alert, but lack precision. They almost know a lot of things, but they just fall short. Perhaps it is because the colleges have demanded a smattering of so many subjects. With freedom as an essential condition of growth, the high schools will expand, guided and limited by the communities which support them. Thus every industrial interest of a community shall be represented, even though the technical phase of the education shall not take up more than a quarter of the time.—C. P. Cary, Madison, Wis.

## Teachers' Salaries.

Question: I am anxious to get salaries paid to teachers, in the grades and high school, in towns from 3,500 to 7,000 population.—R. R. B., Lake Geneva, Wis.

Answer: Following is a statement of the salaries paid in a number of small cities in Wisconsin, Illinois, Iowa and Minnesota:

**Marshfield, Wis.** The board of education has no fixed schedule of salaries, but pays teachers according to experience and efficiency. The superintendent of schools has full power to recom-

mend initial salaries and increases, and teachers who do not make good, i. e., are not worthy of a raise, are dropped. Experienced grade teachers are paid \$50 or \$55 per month at the start, and are increased \$20 to \$25 per year until the maximum of \$60 to \$65 per month is reached.

In the high school, inexperienced teachers are started at \$65 to \$70, and experienced teachers at \$70 to \$75; the maximum is \$85, excepting the first assistant (man) who receives \$1,000 per annum.

The superintendent starts at \$1,600 and is given a yearly increase of \$50. The present incumbent has been in office five years and has been so successful that the board has not yet considered a maximum for him to obtain.

**New Ulm, Minn.** Grades: First and second, minimum, \$475, maximum, \$550; third, fourth, fifth and sixth grades, \$450, minimum, \$500, maximum; seventh and eighth grades, \$550, minimum, \$650, maximum.

High school teachers, minimum, \$600; maximum, \$750; principal, \$900.

**Cedar Falls, Ia.** Grade teachers, \$50 to \$55 per month; eighth grade, \$62.50; principal (eighth grade) \$85 per month; writing and drawing, \$65 per month.

High school instructors, \$50 to \$70, according to experience and subject; principal, \$95 per month.

**Rochester, Minn.** Grade teachers, minimum, \$50 per month; annual increases, \$2.50 per month; maximum, \$65.

High school teachers, minimum, \$60; maximum, \$90; average salary, \$80 per month.

Principal, \$1,000; superintendent, \$1,800.

**Menomonie, Wis.** Kindergarten assistant, \$425 to \$450 per year; director, \$540 per year. Primary grades, minimum, \$425 per year; maximum, \$500. Intermediate grades, \$425; maximum, \$500. Grammar grades, minimum, \$500; maximum paid at present, \$585.

High school, minimum, \$675; maximum, \$1,000; mathematics, \$850; science assistant, \$700; Latin and German, \$720; history, \$720; English, \$720; English and history, \$675.

Superintendent of schools and principal of high school, \$1,850. No grade principals are employed. Director of music, \$540; teacher of art, \$600 (all grades and high school).

**Berlin, Wis.** Kindergarten, minimum, \$45; maximum, \$50. Grades, minimum, \$45; maximum, \$50. Eighth grade, minimum, \$55; maximum, \$60.

High school, minimum, \$65; maximum, \$100. Superintendent of schools and principal of high school, \$1,600 per year. School sessions, nine and one-half months.

**Beaver Dam, Wis.** Grade teachers, minimum, \$450; maximum, \$500; eighth grade, maximum, \$550. Special teachers: Drawing, \$500; music, \$600; domestic science, \$600; manual training (man), \$700.

High school, \$600 to \$650; history and commerce, \$900. Principal and superintendent, \$1,600. The school year is ten months in length.

**Kaukauna, Wis.** Grade teachers, inexperienced, \$45 per month; yearly increase, \$2.50; maximum, \$60 per month.

High school teachers, inexperienced, \$60 per month; yearly increase, \$5; maximum, \$80 per month.

Grade principals, \$800 per year, minimum, advanced, according to experience and size of school, to maximum \$1,000. High school principals, minimum, \$1,000; maximum, \$1,600.

**Mt. Pleasant, Ia.** Grade teachers, up to the seventh grade, \$55 per month, maximum; seventh and eighth grades, \$60, maximum.

High school assistants, maximum, \$65; science teachers, maximum, \$75. High school principal, \$90.

**Taylorville, Ill.** High school, English, \$675 to \$720; Latin, \$765; commercial branches and mathematics, \$1,000; science, \$1,100. Principal, \$1,700.

**Sycamore, Ill.** Salaries are fixed by the board of education, acting upon the recommendations of the superintendent. The salary paid in the grades is \$500 per year; eighth grade teachers receive \$650.

In the high school the following salaries are paid: Music, \$500; domestic science, \$600; mathematics, history, Latin, each, \$800; science and manual training, \$950; English, acting also as principal, \$900. The superintendent receives \$1,500.

**Ocatonna, Minn.** No fixed schedule has been adopted. Primary teachers receive \$50 to \$60 per month; intermediate teachers, \$45 to \$55; grammar, \$50 to \$80; principals, \$55 to \$75.

High school teachers, \$55 to \$75 per month. Superintendent, \$2,000.

**Dixon, Ill.** Grade teachers enter the schools at a minimum of \$40 per month and are advanced \$5 per month at the end of each second year, until the maximum of \$60 is reached. First primary and eighth grade teachers are paid \$5 to \$10 per month in addition to the schedule salary, according to meritorious work.

High school teachers are paid an initial salary of \$60 and are increased \$10 per month for each of the next two years. In the fourth year they are paid the maximum of \$85 per month.

Principals in two three-room schools receive \$5 per month in addition to their salary as class teachers. The principal of a nine-room school is paid \$100 per month and teaches an eighth grade. The principal of the high school has been paid \$1,000, \$1,200 in succeeding years, and now receives \$1,350. The superintendent has been paid \$1,400, \$1,600, \$1,700.

**Baraboo, Wis.** Grade teachers receive a minimum of \$48 per month and a maximum of \$65. Principals of grade schools receive \$70 per month.

In the high school, the minimum is \$72; the maximum \$90. The average paid is \$78.55 and the mean salary is \$81. The superintendent acts as principal of the high school at a monthly salary of \$133.33.

**Batavia, Ill.** Grades, minimum, \$400; maximum, \$600.

High school, minimum, \$650; maximum, \$750; principal, \$850 to \$1,100. Superintendent of schools, \$2,000. Special teacher of drawing, \$200 per year.

**Maquoketa, Ia.** Grades, minimum, \$35 per month; annual increase, \$2.50 per month; maximum, \$60.

High school, minimum, \$60; maximum, \$72.50. High school principal, \$82.50; superintendent, \$1,600.

**Menasha, Wis.** No regular salary schedule. Grade salaries range from \$400 to \$600 per year; high school, \$600 to \$900. Experience and efficiency are the factors considered in making up yearly salary list.

The American high school boy should have a chance to get training in the classical subjects and humanities as well as in the vocational branches. With the complete segregation of these departments, this is impossible. The American boy's education should be resourceful rather than specific. If he is prepared for the work of a trade, he should also be prepared to make a livelihood, and to take his place in the world's work should his trade fail him.—Dr. Richard G. Boone.

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Lower or raise the Shade Roller. The Light as you want it. The Shade where you want it. Now used and greatly appreciated in hundreds of buildings. Simple, durable, inexpensive. A permanent full size sample adjuster for trial costs only the express charges. Send for booklet and free sample of The Johnson WindowStop (on which the adjuster works.) Architects specify them. R. B. JOHNSON, Mfr. 181 Randolph Street CHICAGO, ILL.

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LISTEN—We are talking in good faith. Send inside length of window frame also width between sills and we will send you sample. Express Prepaid, and it will not cost you one cent to learn all about this shade.

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Send for circulars and samples of work. LAWTON & CO. 42 Murray St., New York 59 Dearborn St., Chicago



# DUSTLESS SWEEPING COMPOUND.

Still sits the schoolhouse on the hill;  
A ragged beggar sunning;  
Around it still the sumach grows,  
And blackberry vines are running.

The approach of school days gives wing to the sentiment of this old verse, and though conditions have changed with the progress of time, the pulse of youth beats as high with eager hope and ambition as when we trod with wanton steps our way to school. But retrospection aside, modern conditions of learning have brought new problems into the schoolroom, and first in importance is the health and physical robustness of the child.

We have learned that most diseases are due to micro-organisms, whose natural habitat is dust. By the ordinary means of dusting, these germs are given wing, thus facilitating their propagation, as they build colonies, immediately on finding lodgment.

The Perolin Company of America, located at No. 1078-1090 West Thirty-seventh street, Chicago, whose advertising appears in another column, manufacture a floor sweeping compound—Perolin—which actually absorbs dust. In addition, it is an active germicide, and its daily use in the schoolroom, not only prevents loss due to the destructive power of dust, but minimizes the spread of contagious diseases.

These results have been obtained after exhaustive scientific tests and are susceptible of practical demonstration.

Alvin Davison, Ph. D., Professor of Biology in La Fayette College and author of "The Human Body and Health," in a recent brochure on the subject of "Dust as a Carrier of Disease in the Schoolroom," makes the following statement concerning Perolin:

"As a substitute for the oil dressings and moist sawdust, there has recently been placed on the market a product called Perolin, the invention of an eminent German chemist, which, when swept over the floor, absorbs, in large degree, dust particles, great and small. The cheapness of the product, and its effectiveness in keeping down the dust, commend it to all members of the health brigade. By bacterial cultures, I have been able to demonstrate that, in the sweeping of an ordinary school room, the Perolin used was able to catch and hold fast more than 100,000,000 germs."

The company will gladly furnish a copy of Professor Davison's booklet upon request, and also detailed information concerning the use and merits of PEROLIN.

## MODERN AMERICAN SCHOOLS.

There has never been published by a plumbing supply house a catalogue which completely covers school plumbing from the school point of view. While the sanitary engineering of schools is generally like the ordinary problems of plumbing, it is peculiar in that children are to be dealt with, who need entirely original treatment. "Modern American Schools" is the title of a very excellent book which James B. Clow & Sons of Chicago have issued on "Modern School Plumbing."

In the first place, this is not a catalogue in the strict sense of the word. It is rather a collection of varieties of modern plumbing, of installations suggestive for every school board in the country, of fixtures model and modern in every way, which have compelled attention. In this manner "Modern American Schools" holds interest from cover to cover. There is always something of real value to the school man.

The very first page illustrates the idea. In the center of the page there is an excellent picture of the Cleveland Technical high school, which has been conceded to be one of the best in the country. Above this photograph are two interior views, showing the boys' toilet room, equipped with Cymric Automatic Water Closets (Madden's Patent), and a corridor fitted with the Clow Hygienic Drinking Fountains. Below there are two others, the domestic science room and another view of the boys' toilet rooms, showing the Pedestal Type of Urinal. This style of suggestive illustrations is continued throughout the book.

An excellent photograph of the Hughes high school is used as the decorative design for the foreword. Interspersed with the descriptions of the varied types and styles of plumbing fixtures are cuts of the finest buildings of the country. There are whole pages of such school buildings as the Lafayette and Ashland schools at St. Louis; the North Avenue, the Grant, the Tenth street and Pryor street schools at Atlanta, Ga.; the Lincoln Boulevard, Villa Park school at Denver, Colo., and other pages of buildings at La Fayette, Ind., Washington, D. C., Rockford, Ill., etc., etc.

In the center of the book is a double page spread of the Emerson school at Gary, Ind. It is most interesting and instructive and ought to be of great value to the superintendent of schools, the secretary or purchasing agent or the member of boards of education, who has the erection of new buildings in charge. Besides a large photograph of the school itself, there are photographs of the sewing room, laboratory, auditorium, the lavatories, toilet rooms, swimming pool, main hall and domestic science room. The photographs and layout of cuts are excellent.

The technical parts of the book are divided as follows: First, there is detailed information on the many various types of pedestal toilets, including the well known Madden's Patent. Next are shown and described stalls and partitions. Then come the urinals of a variety of kinds, then the shower baths, the lavatories, drinking fountains and miscellaneous school fixtures. The cuts are unusually good, the descriptions brief and to the point.

James B. Clow & Sons are to be congratulated on their "Modern American Schools." It is good from cover to cover, shows care in preparation and a line of goods of unusual merit. This company has done much in the matter of improved school plumbing. Each building shown in the book is a tribute to James B. Clow & Sons.

Every superintendent of schools and every board member who has anything to do with erection of school buildings ought to have this book in his library as a plumbing reference book.

## "Economy!"

Whenever the Economy Drawing Table Company issues a catalogue it insists upon the fact that its title does not mean penuriousness in the price of the original equipment, but economy in use and maintenance, after an equipment has been installed. For this is the idea upon which their entire drawing tables are built. The economy tables are possibly the most high class articles on the market, are constructed primarily for service, and cover a variety of styles not equalled by any other company.

To illustrate the extent to which drawing tables have been made by this house to suit special demands, a few need only be mentioned. The company is now making tables called engineers', draftsmen's, designers', detailers', contractors' and architects', also, tables for manual training schools, technical schools, industrial schools. A variety of tables are especially adapted to university, high school and academic uses, to meet the needs of the work and the character of the pupils.

The Economy Drawing Table Company has for several years past produced drawing tables for a variety of users. These users are divided into bridge companies, manufacturers and contractors, engineers, surveyors, railroad companies, telephone companies, colleges, schools, architects and the United States Government. In the school field its patrons include such universities as Iowa, Kansas, New York, Illinois, California, Nebraska, Notre Dame, Ohio State, Cincinnati, Pittsburg, etc.; technical schools such as Carnegie Technical, Rensselaer Polytechnic, Bradley Polytechnic, Armour Institute, Sheffield Scientific School, Chicago Technical Schools. Such trade schools as the Milwaukee School of Trades, Columbus, Yonkers, N. Y., etc., and public schools in Akron, O.; Ashland, Wis.; Hibbing, Minn.; Butte, Mont.; Bloomington, Ill., etc., have been equipped.

One department of this company's business which has met with general approval is the de-

Floors  
Free from  
Dust



## Hygienic Schoolroom Floors

A dust-laden atmosphere is a constant menace to health. Continuous activity on the part of pupils stirs up the dust from the floor and keeps it in circulation. Proper ventilation will assist materially in keeping dust at a minimum, but the only solution of this problem is to eliminate the dust entirely. This can be successfully accomplished by treating floors with

## STANDARD FLOOR DRESSING

Actual use has proved beyond question its effectiveness as a dust-extinguisher—the danger from disease contagion from dust being reduced almost one hundred per cent.

Standard Floor Dressing is also a remarkable preservative for floors. It not only keeps the floors from splintering and cracking but actually lessens the labor in caring for them.

Dealers everywhere sell Standard Floor Dressing in barrels and cans. Apply three or four times a year for best results.

WE WILL PROVE the remarkable efficiency of Standard Floor Dressing at our expense. On request we will apply it to the floor of one schoolroom or corridor free of all charge. To localities far removed from our agencies, we will send free sample with full directions for applying.

You will find interesting reading in our booklet "Dust and Its Dangers." Write for copy.

STANDARD OIL COMPANY  
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signing of tables for special uses. Any kind of a drawing table may be specified and the Economy Drawing Table Company will be able to supply the demand. This is a great advantage in the variety of high and elementary schools which want tables for a variety of purposes. A complete catalogue may be obtained by addressing the firm at Toledo, Ohio.

## A NEW FOUNTAIN MANUFACTURER.

Rundle-Spence Mfg. Co., Milwaukee, Wis., announce a line of fountains of variety and quality. They include the pedestal, the wall bracket, the range fountain and several types of fountain heads. The variety is good; the prices are right.

The most recent adoption of their fountains which the company has secured is Milwaukee, for which several hundred have been supplied. The local school board, after a very thorough test, selected the Rundle-Spence fountain for all the schools of the city.

A new catalogue has just been issued entitled "Sanitary Drinking Fountains," which is free for the asking. It will be mailed to any address in the country. It shows all the fountains manufactured by the company, from inexpensive heads and brackets to the pedestal fountains, sinks, basins, etc. School boards ought to address Rundle-Spence Mfg. Co., Milwaukee, Wis., for a copy.

## IF YOU DON'T BUY FROM US WE BOTH LOSE MONEY

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### LARGEST SCHOOL DISTRICT.

Chief Controls Alaskan Territory of 600,000 Square Miles.

From his office in the Colman building on First avenue, Seattle, W. T. Lapp, the chief of the Alaska division of the bureau of education, directs one of the largest, if not the very largest, school district in the world, the Post of that city says. His jurisdiction extends from Point Barrow, the most northerly point in United States territory, down to the southernmost portion of southeastern Alaska. This territory covers an area of nearly 600,000 square miles, one-quarter of which is within the arctic circle, and with the exception of a narrow strip of coast bordering on the North Pacific coast, is ice bound from October until June in each year.

The schools, which are solely for the benefit of the natives, adults as well as children, are distributed as follows: On the shores of the Arctic ocean, of Bering sea and the rivers emptying into those waters north of the Yukon, twenty; in the valleys of the Yukon and Kuskokwin, nineteen; on the shores of southern Bering sea of the North Pacific ocean, west of the 141st meridian, and on the rivers emptying into those waters, twelve; on the mainland and on the islands of southeastern Alaska, eighteen.

The most northerly school is located at Point Barrow. The force of government teachers in Alaska numbers about 100, under the supervision of six district superintendents, and they are paid from \$70 to \$125 per month for the white and from \$40 to \$70 per month for the native teachers. The government is very exacting in the selection of these teachers; those who are strongly actuated by philanthropic motives and have shown capacity to do unusually effective work under adverse circumstances are better qualified for the work than the mere college graduate in pedagogy.

According to the census taken in 1900, the native population of Alaska appeared as 29,536, and in 1908 there were over 3,000 pupils enrolled in the schools; the average cost to the government was \$24.71 per pupil enrolled. Each pupil enrolled in the school at Icy Cape cost \$217.12 per annum, while at Jackson, in southeastern Alaska, the cost was \$26.94.

In former years the educational work in Alaska was confined to the ordinary school curriculum, and beyond enabling the natives to read and write our language the system did not help them to better their condition in life. Now, however, the Alaska school service is somewhat similar in character to the work of the social settlement centers among the foreign population in the large cities in the eastern states.

Only the rudiments of the common school subjects are now being taught, and the center of gravity has been shifted from routine work in the schoolroom to the general improvement of the industrial, sanitary and moral condition of the natives. The girls are instructed in the art of cooking and other branches of domestic science, while the boys have practical instruction in manual training, and, where the climate conditions permit it, the entire community is taught elementary agriculture. Particular attention is paid to instruction in personal hygiene and sanitary methods of living.

They are being taught that lots of ventilation

in their houses, sanitary environments and cleanliness tend to prolong life, but it is uphill work for the teachers to wean them from their inherent lack of cleanliness. With them windows in houses serve no other purpose than to admit light, and the doors are just a means of ingress and egress. The teachers realize that the only way to compel the natives to have sanitary dwellings and environments is to formulate a simple code of sanitary rules, make these compulsory and their non-observance punishable by a fine or imprisonment. This has been recommended to congress, but no action has been taken as yet in the matter by that body.

The problems that face the director of the Alaska school service are many. A system of education that would be beneficial to the natives of southeastern Alaska would not be feasible among the Eskimos of the arctic. The climate conditions are so widely different in the various parts of that country that, in addition to the ordinary school's routine, special instructions have to be adopted in the industries that are adapted to each region.

### SUGGESTIVE OFFICIAL PUBLICATIONS.

*One Room Country Schools in Illinois.* Circular 51, Illinois state department of public instruction, Springfield, Ill. Hon. F. G. Blair, superintendent. Contains valuable suggestive material for bettering rural schoolhouses.

*List of Publications of U. S. Bureau of Education, 1867-1910.* Bulletin No. 3, 1910. Issued by the Bureau of Education, Washington, D. C. Contains chronological list of all reports, circulars and bulletins of the bureau and a complete index.

*Harrisburg School Report, School Year 1909.* Prepared by Supt. F. E. Downes. Published by the board of education. 254 pages. Paper. Illustrated.

*New York Education Law, 1910.* Octavo, 400 pages. Issued by the University of the state of New York, Albany.

*Public School Manual,* West Allis, Wis. Paper, 78 pages. Prepared by Supt. T. J. Jones. Contains data concerning the organization of the schools, courses of study, rules, etc.

*State Legislation for the Physical Examination of School Children.* 3 pages. Bureau of Municipal Research, New York City.

*Philanthropy and Public Education.* Paper, 12 pages. By Martin G. Brumbaugh, superintendent of schools, Philadelphia, Pa.

*How to Test Seed Corn in School,* experiment station circular No. 96. Issued by the U. S. Department of Agriculture.

*School Buildings.* Paper, 32 pages. Prepared for the Colorado schools under the direction of Mrs. Katherine Cook, state superintendent of instruction.

*Year Book* Eastern Kentucky State Normal School, Richmond, Ky.

### NEW BOOKS.

*Children's Gardens for Pleasure, Health and Education.* By Henry G. Parsons. Price, \$1.00. Sturgis & Walton Co., New York.

*Southern Orators.* By Joseph M. McConnell. Price, \$0.25. The Macmillan Co., New York.

*An Outline of English History.* By Norman M. Trenholme. Price, \$0.50. Ginn & Co., Boston.

*Progressive Melodies for Sight Singing.* By Ralph L. Baldwin. Price, \$0.35. Ginn & Co., Boston.

*First Course in Algebra.* By Herbert E. Hawkes. Price, \$1.00. Ginn & Co., Boston.

*The Mother Goose Primer.* By Belle Wiley. Price, \$0.32. Chas. E. Merrill & Co., New York.

*The Blodgett Fifth Reader.* By Frances E. Blodgett and Andrew B. Blodgett. Price, \$0.75. Ginn & Co., Boston.

*Fifty Fables for Teachers.* Price, \$1.00. C. W. Bardeen, Syracuse, New York.

*Three American Poems.* By Garland Greever. Scott, Foresman & Co., Chicago.

*The American Rural School.* By Harold W. Foght. Price, \$1.25. The Macmillan Co., New York.

*The Rescue of Cuba.* By Andrew S. Draper. Silver, Burdett & Co., New York.

*Around the World.* By Stella W. Carroll Tolman and Clarence F. Carroll. Silver, Burdett & Co., New York.

*Berry's Writing Book No. Seven.* B. D. Berry & Co., Chicago.

*Teaching Writing.* B. D. Berry & Co., Chicago.

*A Fairy Tale of a Dog and An Old Dame by the Sea.* By Lois Bates. Longmans, Green & Co., New York.

*Tillers of the Ground.* By Marlon I. Newbligh. Price, \$0.50. The Macmillan Co., New York.

*Selected Essays and Addresses of Thomas H.*

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*Huxley.* By Philo. M. Buck. Price, \$0.25. Macmillan Co., New York.

*Man in Many Lands.* By L. W. Lyde. Price, \$0.65. The Macmillan Co., New York.

*Barnes' Shorthand Dictionary and Phrase Book.* By Mrs. Arthur J. Barnes. Price, \$1.25. A. J. Barnes Publishing Co., St. Louis, Mo.

*Horace Mann.* By Geo. A. Hubbell. Price, \$1.50. Wm. F. Fell Co., Philadelphia.

*American History Leaflets.* By Albert B. Hart and Edward Channing. Extracts from official papers relating to the Isthmian Canal. Price, \$0.10. Parker P. Simmons, New York.

*Among School Gardens.* By M. Louise Greene. Price, \$1.25. Charities Publication Committee, New York.

*Swedish Folk Dances.* By Nils W. Bergquist. A. S. Barnes & Co., New York.

*The Lost Art of Conversation.* By Horatio S. Krans. Price, \$1.50. Sturgis & Walton Co., New York.

*Ben, The Black Bear.* By Wm. H. Wright. Charles Scribner's Sons, New York.

*The Howell Primer.* By Logan D. Howell. Hinds, Noble & Eldredge, New York, Philadelphia.

*Dickens' Christmas Carol.* Amanuensis style of phonography. By Benn Pitman and Jerome B. Howard. The Phonographic Institute Co., Cincinnati.



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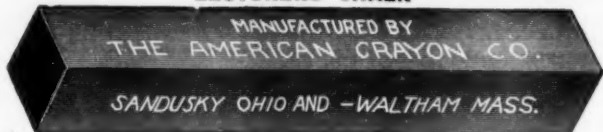
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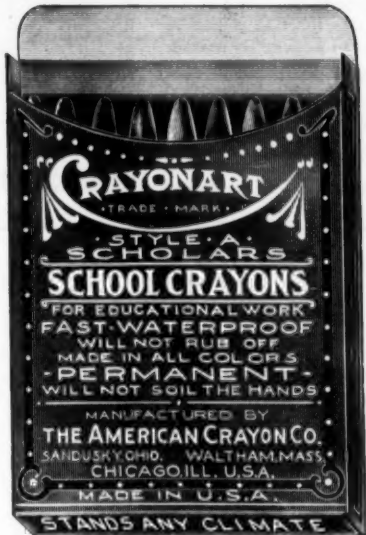
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paper box with an  
attractive picture on  
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pupil can draw.



Retails for five cents.



Three primary colors with black. Unrivalled in their mixing  
value to produce secondary colors.

Price 25 cts. per box.

### KINDERGARTEN CRAYONS



For free arm drawing.  
Just fits the little hands.



### AMERICAN DRAWING CRAYON



6 inches long, 1/8 inch diameter.  
Used for intermediate classes in drawing.

Samples and prices to superintendents and teachers who are interested

When advertising for bids specify item and manufactured  
by The American Crayon Co.

THE AMERICAN CRAYON CO., 1230 Hayes Ave., Sandusky, Ohio

### AMONG BOOKMEN.

Mr. Burges Johnson, New York, manager of Thompson-Brown Company, has recently completed a book of poems entitled "Rhymes of Home." It is to be published shortly by Thos. Y. Crowell.

This is the third book of poetry which Mr. Johnson has written.

Mr. H. R. Dalrymple is meeting with remarkable success as high school and college representative of the American Book Company in southern Ohio. Mr. Dalrymple makes his headquarters at Cincinnati.

Mr. Stuart Eagleson, a general agent of the Chicago office of Ginn & Company, will have charge of the high school and college work in Michigan. He succeeds Mr. L. R. Halsey, who has joined the Equitable Life Insurance Company.

Mr. J. S. Adams has represented Ginn & Company in the eastern part of New York state for over fifteen years. Mr. Adams resides in Albany.

Mr. J. W. Blue is the Indiana agent for the American Book Company. He resides in Van Buren.

Mr. K. N. Washburn, secretary of the G. & C. Merriam Company, Springfield, Mass., is spending a six weeks' vacation in Europe. He is traveling in company with Principal P. I. Bugbee of the Oneonta, N. Y., state normal school.

The Washington county adoptions, which began in April and continued into July, attracted a large number of Eastern bookmen in addition to those who have their regular field in the northwest. The publishers who were represented in the campaign, with the number of men each had in the field were: American Book Company, seven; Ginn & Company, eight; Silver, Bardett & Company, seven; D. C. Heath &

Company, five; The Macmillan Company, two; Rand, McNally & Company, four; Sanborn & Company, three; Chas. E. Merrill Company, two; Houghton Mifflin Company, two; Chas. Scribner's Sons, two; D. Appleton & Company, two; W. H. Wheeler & Company, two; Lyon & Company, two; Doubt & Company, two; Atkinson, Mentzer & Grover, two; Row, Peterson & Company; Little, Brown & Company; World Book Company; Educational Publishing Company; Allyn & Bacon; Newson & Company.

The Chicago contingent of the American Book Company at the Boston N. E. A. convention included: L. M. Dillman, manager; A. W. Clancy, Minneapolis; James C. Dockerill; L. B. Lee.

### FROM A VICTIM.

Oh, you School Board Journal!  
You prevericator infernal!  
How you shocked me!  
How you mocked me!  
I shall "hound" you,  
I shall pound you,  
Till I'm hoary,  
For that story.

A. A. H—h.

### SPECIAL STUDIES.

Cadillac, Mich. A two years' course in commercial branches has been introduced in the high school. The studies offered are as follows:

*First year.* First semester—English, business arithmetic, bookkeeping. Second semester—English, bookkeeping, commercial law, business arithmetic.

*Second year.* First semester—Stenography, typewriting, bookkeeping, business English and business spelling. Second semester—Stenography, typewriting, spelling, business correspondence.

It is planned to add a third year for such students as desire to take up advanced study and to offer courses in economics, civics, stenog-

raphy and higher bookkeeping, with special reference to corporation and cost accounting.

A practical course in Spanish will be introduced in the Woodward and Hughes high schools, Cincinnati, O. A canvass of manufacturing firms and business houses was recently taken and it was found that there exists a need for men who can read and write Spanish to look after correspondence with Central and South American countries.

The Texas state board of education has recently allowed an appropriation of \$2,000 to the schools of Taxarkana for establishing courses in manual training, domestic science and agriculture. The city of Texarkana has devoted a similar amount to the purpose and has purchased standard equipment and employed teachers as required by the state laws. Eight cities have received the benefits of the special state appropriations for manual training.

Class room libraries have recently been started by the Chicago public library in ten schools. The ten thousand volumes chosen are meant primarily to supply the children with wholesome, recreative reading and contain much that will supplement the school work. Each library will remain in a room three or four months and will then be exchanged for a fresh lot of books. The subjects included in the libraries include books on:

Fairy tales and wonder stories.

Out-of-door books and stories of animals.

Amusements and handicrafts.

Stories of home, school, city and country life, and adventure in the United States and England.

Indians and ranch life.

Voyages and stories of seafaring.

Travel and child life in various countries.

Historical stories and biographies.



## ILLINOIS BIBLE DECISION.

The supreme court of Illinois has rendered a decision barring the bible, prayers and hymns of all sorts from the public schools. The opinion of the court is interesting as an exposition of the American doctrine of separation of church and state.

The decision was given in a case brought by the residents of Winchester, Scott county, to prevent daily religious exercises in the schools of that district. In the lower court they were refused a writ of mandamus, but the supreme court reverses the lower court. The petition set up that the pupils were required each day to hear read portions from the King James version of the bible, that they recited the King James version of the Lord's prayer, and that they sang sacred hymns, one of which was mentioned—"Grace Enough for Me."

"The exercises mentioned," the court says, "constitute worship. They are the ordinary forms of worship usually practiced by Protestant Christian denominations. Their compulsory performance would be a violation of the constitutional guaranty of the free exercise and enjoyment of religious profession and worship. One does not enjoy the free exercise of religious worship who is compelled to join in any form of religious worship."

"If these exercises of reading the bible, joining in prayer, and the singing of hymns were performed in a church there would be no doubt of their religious character, and that character is not changed by the place of their performance. If the petitioner's children are required to join in the acts of worship, as alleged in the petition, against their consent and against the wishes of their parents, they are deprived of the freedom of religious worship guaranteed to them by the constitution."

"The wrong arises not out of the particular version of the bible or form of prayer used, whether that found in the Douay or the King James version, or the particular songs sung, but out of the compulsion to join in any form of worship. The free enjoyment of religious worship includes freedom not to worship."

## All Sects Equal in Law.

"It is not a question to be determined by a court in a country of religious freedom what religion or what sect is right. That is not a judicial question. All stand equal before the law—the Protestant, the Catholic, the Mohammedan and Jew; the Mormon, the free thinker, the atheist."

"Whatever may be the view of the majority of the people, the court has no right and the majority has no right to enforce that view upon the minority, however small. It is precisely for the protection of the minority that constitutional limitations exist. Majorities need no such protection; they can take care of themselves."

"The reading of the bible in school is instruction. Religious instruction may not be the object of such reading, but whether it is so or not, religious instruction is accomplished by it. The bible has its place in the school, if it is read there at all, as the living word of God, entitled to honor and reverence. Its words are entitled to be received as authoritative and final. The reading or hearing of such words cannot fail to impress deeply the pupils' mind. It is intended and ought to so impress them."

## Instructed if They Hear.

"They cannot hear the scriptures read without being instructed as to the divinity of Jesus Christ, the trinity, the resurrection, baptism, predestination, a future state of punishments and rewards, the authority of the priesthood, the obligation and effect of the sacraments, and many other doctrines about which the various sects do not agree."

"Granting that instruction on these subjects is desirable, yet the sects do not agree on what instruction shall be given. Any instruction on any one of the subjects is necessarily sectarian, because, while it may be consistent with the doctrines of one or many of the sects, it will be inconsistent with the doctrine of one or more of them."

"The petitioners are Catholics. They are compelled by law to contribute to the maintenance of this school and are compelled to send their children to it, and besides contributing to its

maintenance to pay the additional expense of sending their children to another school. What right have the teachers of the school to teach those children religious doctrine different from that which they are taught by their parents? Why should the state compel them to unlearn the Lord's prayer as taught in their homes and by their church and use the Lord's prayer as taught by another sect?"

## Building Sold.

Chicago real estate circles last month reported the sale of the building which Ginn & Company owned and occupied since the spring of 1908. The sale it is said, involved \$200,000, and was part of the plan originally adopted by the company. A twenty-five year lease has been taken out so that the sale is only a transfer of titles.

The building which will continue to serve as the home of the Ginn & Company building for their peculiar needs. It is 135x100 feet and stands at the juncture of Prairie and Cottage Grove avenues. The style of architecture is English Georgian Renaissance. The building contains store rooms, shipping rooms, private and general offices, a lunch and recreation room, agent's room, etc. It is one of the most useful and at the same time architecturally beautiful buildings in Chicago.

The sale of the Ginn & Company building is of little importance. It was originally planned to erect a building suited for the company's needs and then sell it to some investor. The plan has been carried out and the company is virtually in possession of its own building. From a business point of view the original idea and its consummation have proven most successful.

Mr. H. H. Hilton is still general manager of the Chicago office and Mr. O. J. Laylander is manager of agents.

## NEW CATALOGUE OUT.

The variety of goods which the American Seating Company handles and which is shown in its new catalogue, entitled "School Apparatus and Supplies," is most interesting, and ought to prove profitable to the prospective purchaser of school supplies. It is interesting because of the manner of presentation and the variety of goods offered. It ought to prove profitable to secretaries and purchasing agents of school boards, because it is a veritable market place of everything needed in or about a school from pins to window shades and from paper to vacuum cleaning systems.

Typographically, the catalogue has been prepared with the usual excellence of the American Seating Company's literature. It is well illustrated and not prepared as a common mail order catalogue, but as a reference book which will grace any school board office. The index in the introductory portions of the book is unusually complete, and can be used with ease and rapidity. The photographs of the office of the American Seating Company illustrate the completeness with which the company can handle large and small orders.

A feature of the book is a full page illustration of the plants owned and operated by the company, devoted to the manufacture of public seating. There are shown in this picture two plants at Buffalo, N. Y., the wood working plant and foundry; the factories at Racine, Wis., and Grand Rapids, Mich., and another at Manitowoc, Wis. The page illustrates better than volumes could tell the facilities and the distribution of plants devoted to the manufacture of their goods.

Among the articles shown in the catalogue there are globes, tellurians, maps, charts, blackboards, crayons, erasers, book cases, card indexes,

## Plaster Casts

## FOR DRAWING AND MODELING:

Reproductions from Antique, Mediaeval and Modern Sculpture, Etc.

## SCHOOLROOM DECORATION

These Art Productions have never failed to receive the highest award when placed in competition with other makes.

C. Hennecke Co.  
Formators.

Milwaukee, - Wis.



Send for Catalogue

chairs, tables, dictionaries, dictionary holders, window shades, clocks, flags, bells, drawing instruments, inks, pencils, paints, paper and school furniture.

## BOSTON SUPPLIES.

Interesting figures concerning the amount of supplies and furniture distributed annually to the Boston public schools have recently been issued by Mr. Wm. J. Porter, head of the supplies department. The last annual appropriation for supplies and incidentals was \$206,847, of which \$166,847 were spent for books and materials for the pupils. The average cost per child last year amounted to \$1.50, an increase of about 20 per cent over the average for the five previous years.

The totals of some of the items distributed reached astonishing amounts. Thus, 5,000 quarts of ink were used; 105 tons of stationery were distributed, which included 100,000 pound blocks of paper for arithmetic work, 7,000 reams of letter paper, 290,000 composition books, 13,000 reams of drawing and manila paper, and about 300,000 envelopes of various sizes.

The janitor supplies for a period of six months in the schools cost \$5,000. Ordinarily these include, approximately, 400 dust brushes, 400 brooms, 100 coal hods, 350 door mats, 600 boxes of sawdust, 600 mats, 3,000 pounds of soda ash, 8,000 pounds of soap and soap powder, 1,500 gallons oil.

The Boston pupils wear out about 100,000 books annually. Some of these are repaired, others are rebound and some are exchanged for new books. During the past year nearly 12,000 books were sold as scrap paper. About 3,000 books are lost annually. This amounts to approximately one book for every forty pupils. About 1,000 books are burned each year because of infection. The number of books distributed to each pupil in the fall is nine in the elementary schools and twenty in the high schools.

## School Supplies News.

Anaconda, Mont. The school board has purchased a portable schoolhouse from the American Portable House Co., Seattle.

Norfolk, Va. The board has purchased 250 adjustable desks from the Virginia School Supply Co., Richmond, at \$3.45 per desk.

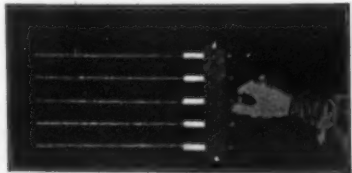
Hutchinson, Kans. The new high school has been equipped with desks and seating manufactured by the A. H. Andrews Co., Chicago.

Dayton, O. Desks for new Hawthorne school have been purchased from the Ohio Rake Company, Dayton.

Springfield, Mo. Contracts for desk tops awarded to the Moore Manufacturing Co., for manual training equipment to Orr & Lockett Hardware Company, Chicago.

A new relief globe for school use has recently been perfected and placed on the market by Prof. J. A. DeVellness, of Loyola University, Chicago. The device is being manufactured by the Joann Arc Mfg. Co., St. Louis, Mo.

Wherever the arithmetic, grammar and language leaflets published by THE BRITTON PRINTING CO., Cleveland, Ohio, have been used they have given satisfaction. The teacher appreciates their value because of the great help given in presenting the subject, and in the interest and enthusiasm aroused in the pupils. The wonderfully low price at which these leaflets are sold, makes them a series well deserving of serious consideration by all grade school officials. Complete set—13 in all—\$1.00 special introductory price.



## THE RAPID BLACKBOARD LINER

Easy to Handle.

For Music and Penmanship.

Sent postpaid on receipt of 25 cents.

College and School Supplies.

PECKHAM, LITTLE & CO.,

57-59 E. 11th St.

NEW YORK



# DIRECTORY SCHOOL SUPPLY AND EQUIPMENT DEALERS

The names given below are those of the leading and most reliable School Supply Houses in the United States. None other can receive a place in this Directory. Everything required in or about a school house may be secured promptly and at the lowest market price by ordering from these Firms.

## APPARATUS—GENERAL.

American Seating Co., N.Y. & Chgo  
McConnell Sch. Sup. Co., Phila.  
Columbia Sch. Sup. Co., Chicago  
E. W. A. Rowles, Indianapolis  
Goder-Helmann Co., Chicago  
A. H. Andrews Co., Chicago

## APPARATUS—SCIENTIFIC.

Bausch & Lomb, Rochester, N. Y.  
Columbia School Supply Co., Indianapolis, Ind.  
C. H. Stoelting Co., Chicago  
Goder-Helmann Co., Chicago  
Ward's Natural Science Est., Rochester, N. Y.

## ARCHITECTS—SCHOOL.

Geo. W. Ashby, Chicago

## BELLS—MANUFACTURERS.

Meneely & Co., Watervliet, N. Y.  
Cincinnati Bell Foundry, Cincinnati, O.  
St. Louis Bell Foundry, St. Louis, Mo.  
(Dealers.)

McConnell Sch. Sup. Co., Phila.  
E. W. A. Rowles, Chicago  
Orr & Lockett Hdw. Co., Chicago  
A. H. Andrews Co., Chicago  
American Seating Co., N.Y. & Chgo  
L. A. Murray & Co., Kilbourn, Wis.

## BLACKBOARDS—COMPOSITION.

N. Y. Silicate Book Slate Co., N.Y.  
Harry N. Pratt, Syracuse, N. Y.  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
American Seating Co., N.Y. & Chgo  
L. A. Murray & Co., Kilbourn, Wis.  
Good Paint Co., Chicago  
A. H. Andrews Co., Chicago  
E. W. A. Rowles, Chicago

## BLACKBOARDS—NATURAL SLATE.

E. J. Johnson, New York  
Penn. Structural Slate Co., Easton, Pa.  
Keenan Structural Slate Co., Bangor, Pa.  
Main-Bangor Slate Co., Bangor, Pa.  
(Dealers.)  
Peckham, Little & Co., N.Y.  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia Sch. Sup. Co., Indianapolis, Ind.  
American Seating Co., N.Y. & Chgo  
L. A. Murray & Co., Kilbourn, Wis.

## BOOK COVERS.

Heiden Book Cover Co., Springfield, Mass.  
Natl. Book Cover Co., Syracuse, N. Y.

## BOOK DEALERS.

Hinds & Noble, New York  
Keystone Book Co., Chicago

## BRUSHES—DUSTLESS.

Milwaukee Dustless Brush Co., Milwaukee, Wis.

## BRUSHES—FLOOR.

Orr & Lockett Hdw. Co., Chicago

## CHARTS.

Peckham, Little & Co., N.Y.  
Harry N. Pratt, Syracuse, N. Y.  
American Seating Co., N.Y. & Chgo  
Milton-Bradley Co., Springfield  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia Sch. Sup. Co., Indianapolis, Ind.  
E. W. A. Rowles, Chicago  
A. H. Andrews Co., Chicago  
Goder-Helmann Co., Chicago  
Rand, McNally & Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Harry N. Pratt, Syracuse, N. Y.

## CLOCKS—PROGRAM.

Engineering Electric Mfg. Co., Stamford, Conn.  
Standard Electric Time Co., Boston  
Fred Frick Clock Co., Wayneboro, Pa.  
Buhl Automatic Clock Co., Chicago  
R. W. Patridge, Chicago  
H. M. Eldred, 819 Pabst Bldg., Milwaukee, Wis.

## CRAYONS—DUSTLESS.

American Crayon Co., Sandusky, O.  
Standard Crayon Mfg. Co., Danvers, Mass.  
Binney & Smith Co., New York  
(Dealers.)

American Seating Co., N.Y. & Chgo  
N. Y. Silicate Book Slate Co., N.Y.  
Eagle Pencil Co., N.Y.  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
E. W. A. Rowles, Chicago  
A. H. Andrews Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Moore Mfg. Co., Springfield, Mo.

## CRAYONS—WATER COLOR.

Am. Crayon Co., Sandusky, O.  
Prang Ed. Co., N.Y. & Chicago  
Binney & Smith Co., New York

## DEAFENING QUILT.

Samuel Cabot, Boston

## DOMESTIC SCIENCE EQUIPMENT.

Orr & Lockett Hdw. Co., Chicago

## DOMESTIC SCIENCE STOVES.

Geo. M. Clark & Co., Chicago

## DOMESTIC SCIENCE TABLES.

E. H. Sheldon & Co., Chicago  
Grand Rapids Hand Screw Co., Grand Rapids, Mich.  
Orr & Lockett Hdw. Co., Chicago

## DRAWING SUPPLIES.

Winsor & Newton, New York, N. Y.  
Binney & Smith Co., New York  
Eagle Pencil Co., N.Y.  
Jos. Dixon Crucible Co., Jersey City, N. J.  
Milton Bradley Co., Springfield, Mass.  
Standard Crayon Mfg. Co., Danvers, Mass.  
American Crayon Co., Sandusky, O.  
Economy Drawing Table Co., Toledo, O.  
Columbia School Supply Co., Indianapolis, Ind.  
Prang Ed. Co., N.Y. & Chicago  
Devoe, Dept. 5, N.Y., Chicago

## DRINKING FOUNTAINS.

Springfield Sanitary Fountain Co., Chicopee, Mass.  
L. Wolff Mfg. Co., Chicago  
Jas. B. Clow & Sons, Chicago  
N. O. Nelson Mfg. Co., St. Louis  
S. B. Tobey, Wausau, Wis.  
Rundle-Spence Mfg. Co., Milwaukee

## DUPLICATORS.

Hektograph Co., New York  
Lawton & Co., New York

## ELECTRIC CLOCK SYSTEMS.

Engineering Electric Mfg. Co., Stamford, Conn.  
Standard Electric Time Co., Boston  
Fred Frick, Wayneboro, Pa.  
R. W. Patridge & Co., Chicago  
H. M. Eldred, 819 Pabst Bldg., Milwaukee, Wis.

## ERASERS.

N. Y. Silicate Book Slate Co., N.Y.  
Peckham, Little & Co., N.Y.  
American Seating Co., N.Y. & Chgo  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
E. W. A. Rowles, Chicago  
A. H. Andrews Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Winsor & Newton, New York, N. Y.  
Moore Mfg. Co., Springfield, Mo.

## FIRE-PROOF CONSTRUCTION.

National Fire-Proofing Co., Pittsburg

## FLAGS AND BUNTING.

Peckham, Little & Co., N.Y.  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
E. W. A. Rowles, Chicago  
A. H. Andrews Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.

## FLOOR DEAFENING.

Samuel Cabot, Boston

## FLOOR DRESSING.

Standard Oil Co., Principal Cities

## GAMES.

Improved Shuffle Board Co., Grand Rapids, Mich.

## GLOBES.

Peckham, Little & Co., N.Y.  
Harry N. Pratt, Syracuse, N. Y.  
American Seating Co., N.Y. & Chgo  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
E. W. A. Rowles, Chicago  
A. J. Nystrom, Chicago  
Goder-Helmann Co., Chicago  
Rand, McNally & Co., Chicago  
A. H. Andrews Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Moore Mfg. Co., Springfield, Mo.

## GYMNASIUM APPARATUS.

Fred Medart Mfg. Co., St. Louis

## HEATING AND VENTILATING ENGINEERS.

Lewis & Kitchen, Chicago  
American Foundry & Furnace Co., Bloomington, Ill.  
Peck-Hammond Co., Cincinnati  
Columbus Htg. & Vtg. Co., Columbus, O.

## INKS.

Barbour Tablet Ink Co., Evansville, Ind.  
George Mfg. Co., Chicago

## INK WELLS.

Squires Ink Well Co., Pittsburg, Pa.  
U. S. Inkwell Co., Des Moines, Ia., and Evansville, Ind.

## KINDERGARTEN SUPPLIES.

Milton-Bradley Co., Springfield  
E. W. A. Rowles, Chicago  
Thomas Charles Co., Chicago

## LABORATORY FURNITURE.

Economy Drawing Table Co., Toledo, O.  
Columbia School Supply Co., Indianapolis, Ind.  
American Seating Co., N.Y. & Chgo  
A. H. Andrews Co., Chicago  
C. H. Stoelting Co., Chicago

## LANTERN SLIDES.

McIntosh Stereopticon Co., Dept. 3, Chicago  
C. H. Stoelting Co., Chicago

## LATHES.

Shepard Lathe Co., Cincinnati  
Oliver Machinery Co., Grand Rapids, Mich.  
Orr & Lockett Hdw. Co., Chicago  
E. H. Sheldon & Co., Chicago

## LIQUID SLATING.

N. Y. Silicate Book Slate Co., N.Y.  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
E. W. A. Rowles, Chicago  
L. A. Murray & Co., Kilbourn, Wis.

## MANUAL TRAINING BENCHES.

Chandler & Barber, Boston  
Grand Rapids Hand Screw Co., Grand Rapids, Mich.  
Oliver Machinery Co., Grand Rapids, Mich.  
Columbia School Supply Co., Indianapolis, Ind.  
Economy Drawing Table Co., Toledo, O.  
C. Christiansen, Chicago  
E. H. Sheldon & Co., Chicago  
Orr & Lockett Hdw. Co., Chicago  
A. H. Andrews Co., Chicago  
Wilcox Mfg. Co., Aurora, Ill.

## MANUAL TRAINING SUPPLIES.

Chandler & Barber, Boston  
C. Christiansen, Chicago  
E. H. Sheldon & Co., Chicago  
Orr & Lockett Hdw. Co., Chicago  
Wilcox Mfg. Co., Aurora, Ill.  
Grand Rapids Hand Screw Co., Grand Rapids, Mich.  
Oliver Machinery Co., Grand Rapids, Mich.  
Moore Mfg. Co., Springfield, Mo.

## MAPS.

Peckham, Little & Co., N.Y.  
Harry N. Pratt, Syracuse, N. Y.  
American Seating Co., N.Y. & Chgo  
McConnell Sch. Sup. Co., Phila.  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
E. W. A. Rowles, Chicago  
Goder-Helmann Co., Chicago  
W. & A. K. Johnston, Chicago  
A. J. Nystrom, Chicago  
Rand, McNally & Co., Chicago  
A. H. Andrews Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Moore Mfg. Co., Springfield, Mo.  
Harry N. Pratt, Syracuse, N. Y.

## OPERA CHAIRS.

Peckham, Little & Co., N.Y.  
American Seating Co., N.Y. & Chgo  
Haney School Furn. Co., Chicago  
Columbia School Supply Co., Indianapolis, Ind.  
Peabody School Furniture Co., No. Manchester, Ind.  
E. W. A. Rowles, Chicago  
A. H. Andrews Co., Chicago  
Moore Mfg. Co., Springfield, Mo.  
Peter & Volz, Arlington Heights, Ill.

## PASTE-POWDER.

George Mfg. Co., Chicago

## PAPER TOWELS.

E. W. A. Rowles, Chicago  
Standard Paper Co., Milwaukee, Wis.

## PENCIL MANUFACTURERS.

Jos. Dixon Crucible Co., Jersey City, N. J.  
Eagle Pencil Co., N.Y. City  
Eberhard Faber, N.Y. City

## PENCIL SHARPENERS.

F. H. Cook & Co., Leominster, Mass.  
Peckham, Little & Co., N.Y.  
Eagle Pencil Co., N.Y. City  
Eberhard Faber, N.Y. City  
Jos. Dixon Crucible Co., Jersey City, N. J.  
E. W. A. Rowles, Chicago  
L. A. Murray & Co., Kilbourn, Wis.

## PEN MANUFACTURERS.

Esterbrook Steel Pen Mfg. Co., N.Y.  
Eagle Pencil Co., N.Y. City

## PHYSICAL AND CHEMICAL APPARATUS.

Columbia School Supply Co., Indianapolis, Ind.  
C. H. Stoelting Co., Chicago

## PLASTER CASTS.

C. Hennecke Co., Milwaukee, Wis.

## PLUMBING FIXTURES—SCHOOL.

N. O. Nelson Mfg. Co., St. Louis, Edwardsville, Ill.  
Lewis & Kitchen, Chicago  
L. Wolff Mfg. Co., Chicago and Kansas City  
Jas. B. Clow & Sons, Chicago  
Columbus Htg. & Vtg. Co., Columbus, O.  
Rundle-Spence Mfg. Co., Milwaukee

## PORTABLE SCHOOLHOUSES.

American Portable House Co., Seattle, Wash.

## PROJECTION LANTERNS AND ACCESSORIES.

Bausch & Lomb, Rochester, N. Y.  
C. H. Stoelting Co., Chicago  
McIntosh Stereopticon Co., Dept. 3, Chicago

## PROGRAM CLOCKS.

(See Clocks—Program.)

## RELIEF GLOBES AND MAPS.

Rand, McNally & Co., Chicago  
Goder-Helmann Co., Chicago  
McConnell Sch. Sup. Co., Phila.

## ROOFING—SLATE.

Penn. Struct. Slate Co., Easton, Pa.  
Keenan Structural Slate Co., Bangor, Pa.  
Main-Bangor Slate Co., Bangor, Pa.  
E. J. Johnson, New York

## SANITARY ENGINEERS.

Lewis & Kitchen, Chicago  
American Foundry & Furnace Co., Bloomington, Ill.  
Peck-Hammond Co., Cincinnati

Columbus Htg. & Vtg. Co., Columbus, O.

## SANITARY FIXTURES.

Keenan Structural Slate Co., Bangor, Pa.  
Main-Bangor Slate Co., Bangor, Pa.  
N. O. Nelson Mfg. Co., St. Louis  
L. Wolff Mfg. Co., Chicago  
Jas. B. Clow & Sons, Chicago  
Lewis & Kitchen, Chicago  
Peck-Hammond Co., Cincinnati, O.  
Rundle-Spence Mfg. Co., Milwaukee

## SCHOOL BLANKS.

Peckham, Little & Co., N.Y.  
American Seating Co., N.Y. & Chgo  
McConnell Sch. Sup. Co., Phila.  
E. W. A. Rowles, Chicago  
A. J. Nystrom, Chicago  
L. A. Murray & Co., Kilbourn, Wis.

## SCHOOL FURNITURE.

American Seating Co., N.Y. & Chgo  
W. A. Choate, Albany, N. Y.  
Economy Drawing Table Co., Toledo, O.  
Columbia School Supply Co., Indianapolis, Ind.  
Peabody School Furniture Co., No. Manchester, Ind.  
Haney School Furn. Co., Chicago  
E. W. A. Rowles, Chicago  
A. H. Andrews Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Moore Mfg. Co., Springfield, Mo.  
Peter & Volz, Arlington Heights, Ill.

## SCHOOL SUPPLIES.

Peckham, Little & Co., N.Y.  
N. Y. Silicate Book Slate Co., N.Y.  
Harry N. Pratt, Syracuse, N. Y.  
American Seating Co., N.Y. & Chgo  
W. A. Choate, Albany, N. Y.  
McConnell Sch. Sup. Co., Phila.  
Columbia School Supply Co., Indianapolis, Ind.  
Peabody School Furniture Co., No. Manchester, Ind.  
Haney School Furn. Co., Chicago  
E. W. A. Rowles, Chicago  
Rand, McNally & Co., Chicago  
A. H. Andrews Co., Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Moore Mfg. Co., Springfield, Mo.

## SEWAGE DISPOSAL.

N. O. Nelson Mfg. Co., St. Louis  
Lewis & Kitchen, Chicago, Kansas City, Mo.

## STOVES—SCHOOL.

Geo. M. Clark & Co., Chicago

## SWEEPING COMPOUNDS.

Peroline Co., Chicago

## TEACHERS' AGENCIES.

Teachers' Exchange, Boston  
Pratt Teachers' Agency, N.Y. City  
Schermerhorn Teachers' Agency, N.Y.  
Albany Teachers' Agency, Albany, N.Y.  
School Bulletin Agency, Syracuse  
Teachers' Co-operative Employment Bureau, Indianapolis  
Instructors' Agency, Marion, Ind.  
Albert Teachers' Agency, Chicago  
Clark Teachers' Agency, Chicago  
McCallough Teachers' Agency, Chicago  
Fisk Teachers' Agency, Chicago  
Yates-Fisher Agency, Chicago  
Parker Edu. Bureau, Madison, Wis.  
Specialists' Agency, O. J. Osborn, Warrensburg, Mo.  
Colorado Teachers' Agency, Denver

## TYPEWRITERS.

Smith-Premier Typewriter Co., Syracuse, N. Y.  
Remington Typewriter Co., N.Y.  
Victor Typewriter Co., N.Y.

## VACUUM CLEANING SYSTEMS.

McCrum-Howell Co., N.Y.

## WALL DEAFENING.

Samuel Cabot, Boston

## WATER COLOR PAINTS.

Milton-Bradley Co., Springfield, Mass.  
Am. Crayon Co., Sandusky, O.  
Prang Educational Co., Chicago  
Devoe, Dept. 5, Chicago & N.Y.  
Winsor & Newton, New York, N.Y.

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